

FLORIDA HIGHWAYS



A Typical Scene of Florida Beauty—Crystal Spring in Pasco County

Vol. 1

JULY, 1924

No. 8

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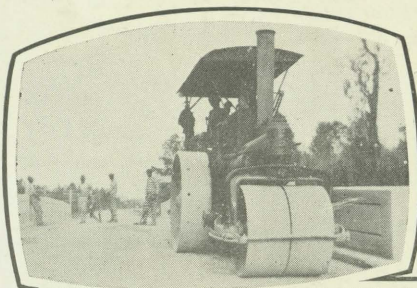
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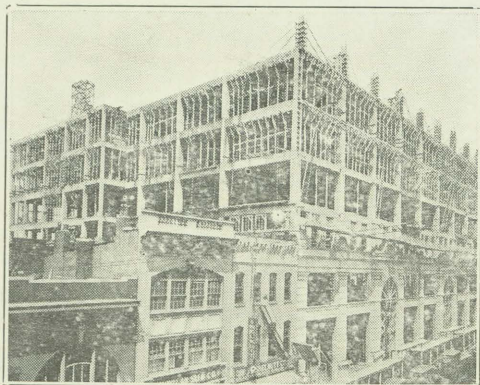
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The story is told in three short, simple statements, the first of which will appear shortly in this magazine.

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Florida Highways

Published Monthly
Official Publication of the State Road Department

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B. A. Meginniss, Attorney for the Department,
Editor and Business Manager

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THE RIGHT OF WAY SITUATION

Attention is directed to the splendid presentation of the situation with respect to road location and rights of way appearing in the Chairman's Column.

The chairman has touched upon a subject which has grown more and more perplexing and serious as time goes on. Many instances have occurred where rights of way have not been secured until the work of road construction is actually under way. Such a situation is fraught with danger, and is calculated to involve the Department in numerous difficulties.

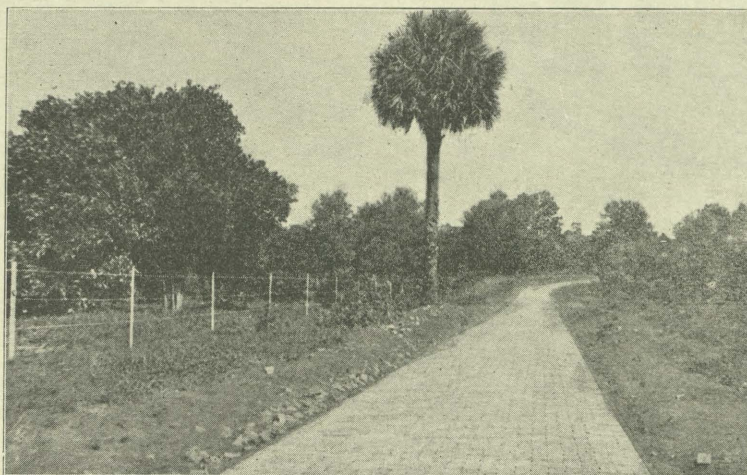
As pointed out by the Chairman, it has been the custom of the Department in building a State road to have the counties through which the road passes, secure the necessary right of way. This would seem to be a small thing to ask in view of the incalculable benefits accruing to the county from the construction of such a type of road as the Department builds. And be it said to the credit of the counties, that they have practically without exception, carried out the wishes of the Department.

In some instances, however, the matter has not been fortunately handled. The best time to secure a right of way is the moment the location is definitely determined. The longer the actual securing of the right of way is delayed, the more difficult it becomes to secure all of it. The ideal way to get the same is by securing deeds, and the County Commissioners will find, in most instances that this is not a difficult matter if attended to promptly. When the location is definitely made, the counties should at once take prompt steps to secure deeds covering the same, and in the event of failure to secure any one or more pieces, condemnation proceedings under proper authority should be commenced at once. This will minimize the danger of delay when the work starts.

It is obviously inexpedient to let a contract for work until the necessary rights of way have been secured. It is dangerous to take it for granted that the same can be secured at any time—the time to make sure is in advance of the letting of any contract for work, and counties would do well to realize that this will and must in the very nature of things be the attitude of the Department.

Acknowledgment should be made to the counties of their willingness to co-operate, and the excellent assistance they render the Department in carrying out its programme of construction. It is the belief of the Department that the counties will understand what has been here written which is for the sole purpose of suggesting a method by which their duty of furnishing the rights of way may be facilitated.

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Zero Milestones Along the Old Spanish Trail

(Editor's Note: The following article is presented through the courtesy of H. B. Ayres, Managing Director of the Old Spanish Trail Association.)

With construction and maintenance now so rapidly developing the Old Spanish Trail from St. Augustine to San Diego a new work is organizing; that for roadside preservation and beautification. The women inaugurated this movement at New Orleans where large delegations from Louisiana, Mississippi and Alabama made comprehensive plans for beautification work to coordinate with that other great program of highway construction. Representative women were also present from Florida and Texas. Organization was completed at San Antonio with Mrs. Ethel S. Drought as director-general of the women's department.

An initial step toward marking and measuring is the zero milestone. Rome marked the zero point of her road system by a golden milestone in the Forum. S. M. Johnson, now general director of the Lee Highway, suggested in 1919 a zero stone at Washington. Major L'Enfant in his original plan for Washington suggested "an historical column" as the "station" for calculating all distances. When the Army Convoy for testing roads and bridges made that journey in 1919 from Washington to San Francisco over the Lincoln Highway a temporary marker was placed south of the White House. June 4, 1923,

the national zero milestone was dedicated at this spot by President Harding, with cabinet officers and high officials, the Lee Highway Association, Mystic Shrine, American Automobile Association and the National Automobile Chamber of Commerce and others participating.

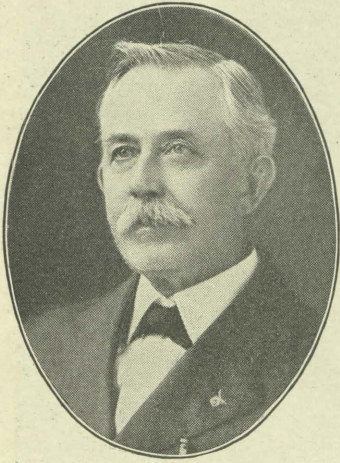
November 17, 1923, a zero stone was dedicated at San Diego, the Pacific terminus of the Old Spanish Trail, and of the Lee and other highways. Col. Ed Fletcher of San Diego read the dedicatory address of President Coolidge. Various organizations and a large assemblage participated.

The next zero milestone was dedicated for the Old Spanish Trail by Governor Pat M. Neff March 27, 1924, at San Antonio. It was placed by the Federation of Women's Clubs and consists of a five-ton boulder calculated as over a million years old. The State Highway Commissioners, State and Federal Engineers, city and county officials and many distinguished guests were present. Old stage drivers re-enacted the stage coach journeys between San Antonio and San Diego and old freighters gathered once again and brought in pack and wagon trains as far as from Mexico and from the West.

At St. Augustine an Old Spanish Trail monument

(Continued on Page Four)

Chairman's Column



ROAD LOCATION AND RIGHTS OF WAY

One of the difficulties with which a State Road Department has to contend is the matter of getting a proper location for a State road. It is hard to get many people to understand that a State road is State property and is designed primarily to accommodate the needs of general State travel rather than merely local needs. In many cases the existing county roads are improperly located, involving grade railroad crossings, sharp curves and other objectionable features that should not occur on a State road. Yet, it is often sought to have the Department in building the new road follow the line of the old road.

Connected with this location trouble is the difficulty of getting a right of way. Everybody wants good roads and most people are very generous in the matter of giving a right of way through their property, but once in a while we find people who insist on telling us just where the road shall be located, and are selfish to the extent that they are willing to make the public suffer in order that their own desires may be served. The old way of locating a road was to let the property owners along the route of the way say just where the road should go. The result was right angle turns, steep grades, and too often unnecessary grade crossings. Bill Jones lived on the north side of the railroad and he being a man of influence the county authorities built the road to suit his convenience. At the next farm, Joe Williams would like to have the road on the south side and the road was built across the railroad, and so they went, zigzagging down the line, building death traps to suit the convenience of selfish men. Follow the line of the old road from Jacksonville to Pensacola, or the road from Jacksonville to Miami, and note the number of grade crossings that might have been avoided by a proper location of the highway. Read the lists of deaths and injuries occurring because of accidents at grade crossings; bear in mind that many of these crossings might well have been avoided, and one is appalled at the toll of death and suffering that our people pay to the thoughtlessness, and too often the selfishness, of

those concerned in the matter of locating public roads.

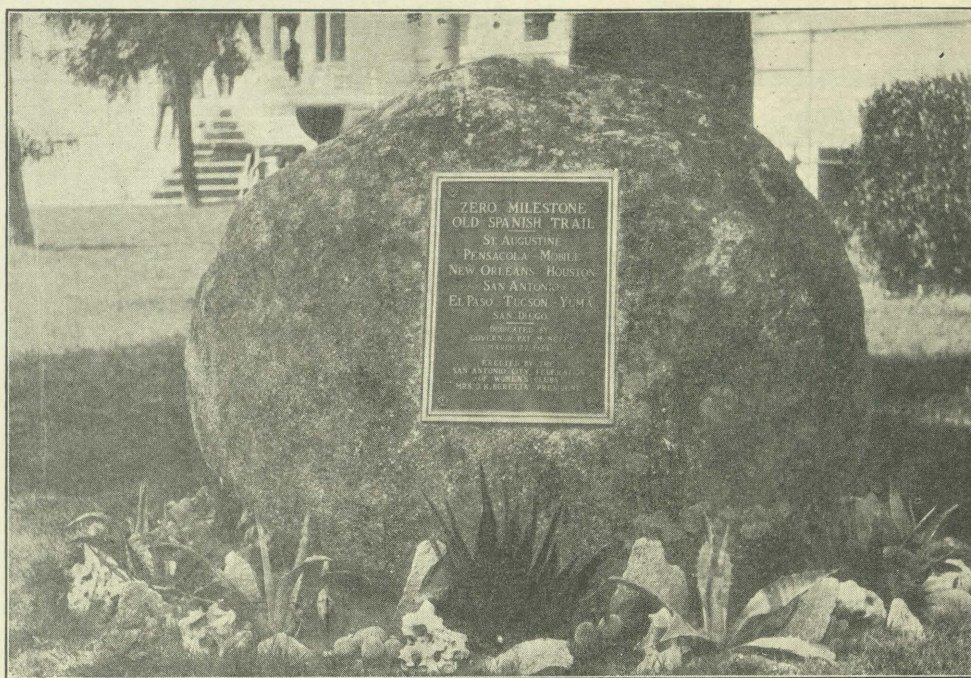
On account of the great increase in travel on public roads by rapidly moving motor vehicles it is obvious that we cannot follow the old policy as to the matter of locating the roads, and in many cases we must ask property owners either to give or sell a right of way that does not suit them. It is the policy of this Department to require the counties to furnish the right of way, and the county officials should bear in mind that the old policy of allowing property owners to dictate in this matter cannot longer be followed. Conflicts are bound to arise and in most cases these conflicts can be adjusted without difficulty, but cases will be found where the property owner will not be reasonable and will neither give or sell a right of way at a fair price. To meet cases of this kind, the law has provided a remedy. You cannot take a man's property for a public road without paying for it, but in case he refuses to sell the right of way at a fair price it can be acquired by condemnation proceedings. It is far better to pay a reasonable price for a right of way than to improperly locate the road. It must be remembered that these State roads are permanent things. We look to future as well as present needs. It is expected that they will serve the coming generations as well as the present. It is well, therefore, to get the proper location and the people and county officials should cooperate by getting us the right of way.

A MOTORISTS' MINUTE

There's no question that time is a valuable commodity—but there are limits to its value. To note the way some persons drive their cars over the city street intersections, where it is impossible to view approaching traffic, you would think their time was worth a million dollars a minute. Did you ever figure what a man actually saves in time by risking his life and those of others? A speed of thirty miles an hour covers a mile in two minutes. Twenty miles an hour takes three minutes for a mile. If you drive a mile at the rate of thirty miles an hour, you save sixty seconds over the man who follows you at twenty miles an hour. You have risked your life with those of others, and broken the law to save sixty seconds. What's the use.—Exchange.

AN IDEAL

Therefore when we build, let us think that we build forever. Let it not be for the present delight, nor for present use alone. Let it be such work as our descendants will thank us for, and let us think, as we lay stone on stone, that a time is to come when those stones will be held sacred because our hands have touched them, and that men will say as they look upon the labor, and wrought substance of them, "See this our Fathers did for us."—Ruskin.



Zero Milestone, Old Spanish Trail, San Antonio, Texas.

ZERO MILESTONES ALONG THE OLD SPANISH TRAIL

(Continued from Page One)

already exists and this may be re-dedicated in place of a new stone to mark the beginning of the Old Spanish Trail in its historical reach across the continent.

These Old Spanish Trail stones will fix the measuring points at the beginning, the center and the end of the highway—St. Augustine, San Antonio and San Diego, each a city rich in historical interest as a center in the early works of the Spanish Conquistadores and Padres to subject the American continent to the standards of Spain. From these zero points intermediate milestones of historical design will be accurately placed as the permanent location of the highway is fixed and built, and other highways likewise will take their measurements from these points. The plans of the women for beautification will key into these plans for measuring and marking.

The dedicatory address of Governor Pat M. Neff, remarkable in its breadth and brevity, follows:

Address of Governor Neff

Everything within the grasp of human intelligence must have a starting point, and that which indicates the beginning may well be called a zero marker. Sacred and secular history is punctuated with well-established periods.

"In the beginning God created the heaven and the earth," is the Biblical account of the establishment of the first great zero monument. From this beginning on the highway of time, the world is measured chronologically, geographically, and historically. The second great marker was the Cross of Calvary, erected on Golgotha's Hill, near the Garden of Gethsemane. From this sacred zero point diverge the highways at man's obedience and man's disobe-

dience which finally separate the respective travellers thereon as far as the East is from the West.

From these two great fixed and designated points on the highway of progress, the human race, by slow and toilsome journey in search for political liberty and religious freedom, has paragraphed its history with enduring markers. The people in their onward climb through the long stretches of history, marked their triumphant journey here and there with zero monuments, and guideposts for succeeding generations to follow.

They erected historical markers at Marathon, at Tours, at Waterloo, at Lexington, and here at the sacred Alamo, where, by their blood and bravery, Texas patriots unfurled the flag of revolution that ultimately extended the highway of civilization from the Sabine river to the Pacific slope.

Every engineering project, every map-making plan, every astronomical observation, every survey contemplated by the genius of man, must have a beginning point somewhere. For measuring altitude, the sea level is the beginning; for measuring latitude, the equator is the initial point; for measuring longitude, Greenwich, England, is designated as the zero monument.

In keeping with this earth-encircling thought that all things within the wide scope of human intelligence should have a fixed and designated beginning point, this granite boulder is here today erected as a point from which to measure all distances on the Old Spanish Trail, and its connecting lines, covering a distance of nearly four thousand miles. Indeed, no more fitting place could have been found between the two great oceans on which to erect this zero marker of the Old Spanish Trail than here in this strategic city, situated geographically midway between the two terminals of this historic highway. In this thriving, cosmopolitan city of San Antonio, no more

appropriate spot could have been designated for the placing of this monument than here, on Military Plaza, within the shadow of the age-old San Fernando Cathedral, whose uplifted iron cross has always been used as the beginning point for land surveys, and which, to this day, well represents the geographical center of your city.

This stone of enduring Texas granite, estimated to be a million years old, presented to San Antonio by your City Federation of Women's Clubs, and dedicated, on this occasion, as a measuring marker for the Old Spanish Trail, is the third zero monument to be erected in the entire United States.

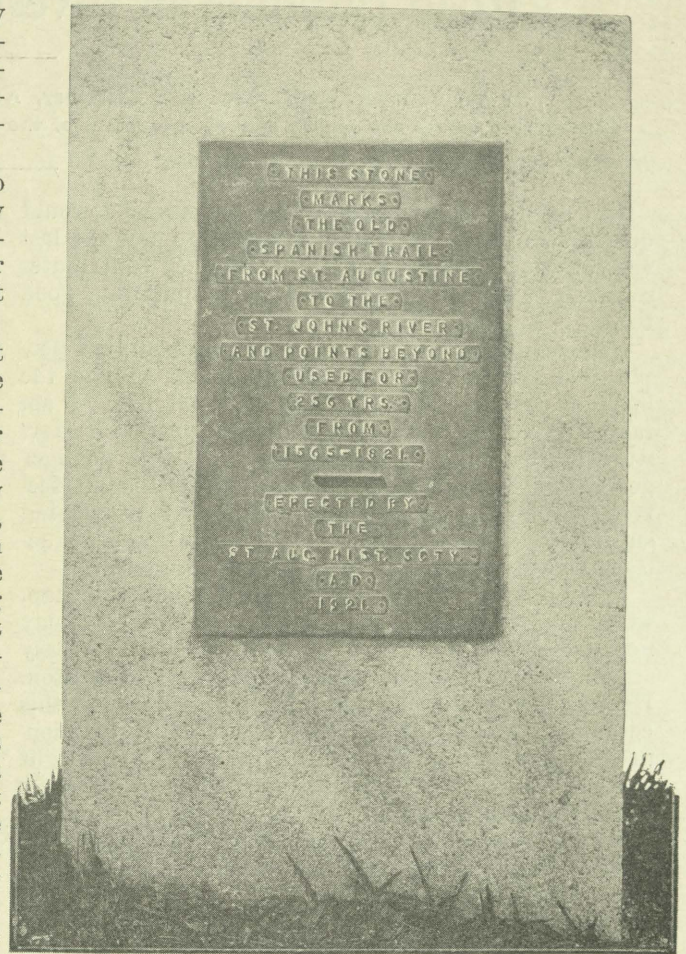
This highway, the Old Spanish Trail, beginning at the water's edge of the Atlantic Ocean, skirting the coast of the Gulf of Mexico, traversing for a thousand miles the southern reaches of the Lone Star State, crossing the plains and canyon districts of the one-time great American Desert, threading its way over the snow-capped peaks of the Rocky Mountains, leaping like a living thing from the rough western slopes of this mountain range, bounding through the fertile and picturesque valleys of California, halting only when it meets the defying waves of the "Sunset Sea," is the oldest, most historic, enchanting, romantic highway that crosses the American continent.

The Old Spanish Trail, destined to be one of the nation's greatest arteries of trade and travel, is lined with shrines, rich in the lore and learning of a thrilling past. Adjacent to, and along this ancient road, traveled, in 1535, Cabeza de Vaca and his three companions, the first white men to cross the continent. It leads through historic regions whose early history begins with the discovery of the Western World by Columbus, and follows the territory made famous by the explorations of La Salle, De Soto, Coronado, and Ponce de Leon. Some of these explorers struggled to find cities of gold, others mountains of silver, and still others the "Fountain of Youth." Following their golden dreams and silver phantoms, they blazed out new trails over and along the territory through which this highway runs, vainly seeking, like Sir Galahad of classic lore, that which they did not realize lay beneath their feet, wholly unconscious of the fact that they had found their Eldorado and reached the fabled land of their dreams.

Along with these seekers of fortune and worldly glory, came, to teach the blessings of work and worship, those pathfinders of civilization, who established the historic missions which dot the course of the Old Spanish Trail, and which now constitute the most lasting monuments to the heroic struggles and hardships of the beginning days of enlightenment in this wonder-region of romance and wealth.

Over this Old Spanish Trail, extending back into the centuries, the early pioneers of Texas traveled—over it drove the daring stage coach—over it came those who fired the first shot for Texas independence—over it journeyed the martyrs who died at the Alamo—over it marched Sam Houston and his illustrious compatriots who won our freedom on the field of San Jacinto.

In keeping with this historic and deathless past, we here today, plant and dedicate amid these romantic and historic surroundings, this zero monument on this transcontinental highway, in the hope



Stone marking the Old Spanish Trail and the Beginning of history at St. Augustine, Florida.

and faith that as long as gravity swings the planets, and the waters of the San Antonio river seek the level of the sea, this highway extending from the stormy Atlantic to the calm Pacific, with its ever-changing panorama of beauty, will be used by the people to preserve in peace and perpetuate in power a government worthy the lives of those who won our freedom and made immortal the Old Spanish Trail.

TREE MAINTENANCE

It has been demonstrated that shade is an effective agent in road maintenance. Systematic planting of trees on the state highways of California was made possible through the establishment of a state nursery in 1920. Here thousands of trees are propagated annually for this purpose. Some 270 miles of plantings have been made during the past four years and the care of these trees is a duty of the maintenance department.

In cooperation with the State Board of Forestry, the state highway commission employs an expert arboriculturist to superintend the planting and care of trees along the highways.—California Highways.

Worse

"Did the speaker electrify his audience?"

"No, he merely gassed it."—Willamette Collegian.

Road Building an Investment, Not an Expense

By W. C. MARKHAM, Executive Secretary, American Association of State Highway Officials
(An address before the eighth annual convention of the National Sand and Gravel Association, St. Louis, Mo.)

If I were to take a text for this discussion I would quote from the first chapter of Coolidge and the last verse: "No expenditure of public money contributes so much to the national wealth as for building good roads."

Someone has said that every year five million people join the ranks of those who must assume the business responsibilities of our national life. I am taking it for granted that this organization is forward-looking enough to have some of this younger generation in its midst, and therefore I shall feel free to make comment upon this very engrossing subject in a manner that may include some deductions already apparent to many here present.

In the early days of our Colonial history, a man, we forbear to mention his name in order that we may not embarrass his descendants, proceeded by easy stages to a spot about twelve miles west of Boston. Here he drove a stake, and while going through this ceremony, exclaimed: "This far will civilization probably go, and no farther." Having our hindsight and not being burdened with his foresight, we smile at his narrow vision of the future development of this country, and yet there are those here today who a few years ago did not dream of the tremendous revolution which has taken place in our transportation system.

The motor age, like the stone age, the iron age and the steam age, is having its inning. And it came without warning. Our people have eleven billion—do you comprehend the figure?—eleven billion dollars tied up in highway rolling stock, and this includes only motor driven equipment. Do you wonder that we have been making frantic efforts to prepare and conserve the highways over which this immense quantity of rolling stock travels? Is it not plain business sense to protect these values and render service which will lower the traffic costs? I believe I am safe in agreeing to offer a chromo to any city dweller in this country who will name one single article of clothing or food which he uses that has not, at some time in its preparation for his use, been transported over a highway. And we are too prone to forget that this has been one of the elements in the cost of production. This same offer applies to any citizen, with the exception as it may pertain to some articles of food.

Natural fertility of the soil is not the gauge of land values. Transportation centralization and accessibility have made the cities. Likewise, the farmer who lives where his products can be transported at all seasons of the year, and with the least loss in time, reaps a similar reward. Agriculture is the greatest and most necessary industry in the world and yet we have allowed its products to shift for themselves whenever speedy and prompt delivery were concerned. If it will pay the farmer to use the binder instead of the cradle, it will also pay him to be able to haul to market twice as much and twice

as often as he has been able to do in the past. If he would control the market on his products he must also control the condition of the roads on his way to the market.

A man's life is not measured by the number of acres he owns. The Indian who roamed this country for generations gone by, lived and died, with a fair measure of satisfaction of his animal wants. The black chief in the jungles of Africa has a world all to himself, but it is a world of nothingness as we consider life. In their native conditions, without the possibility of any civilizing surroundings, you would not give them ten cents an acre for their land. Even a white man may eke out an existence by trapping wild animals and sleeping in the caves of the mountains; he may have a hut on a by-road and raise a little corn and a few pigs; but the harder it is to reach the centers of mercantile life, the less valuable is the home of the occupant. The more perfect the transportation facilities by a man's farm to reach the market centers and thence to the large arteries of trade and social life, the more valuable his holdings, and the greater opportunity his family has to obtain things worth while.

Isolation is the greatest drawback in developing our intellectual and social life. The hermit may live in a hut far back from the road and think he is keeping himself unspotted from the world, but the chances are that in his seclusion he is overtaken by a greater evil and becomes covered with vermin. Nothing this world possesses is too good for humanity. It isn't so much where you live, but how you live where you live. A hog loves a mud wallow, but flowers won't grow on its banks. Recently a farmer whose wife had been committed to an asylum, in talking over with a physician her condition, said: "I don't know what made her go insane. She has nothing to bother her. We live on a quiet road. In fact, she has hardly been out of the kitchen for eighteen years."

The gold in the mine hasn't as much economic value as the soil on the top of the ground, so long as it remains undiscovered. The wealth of the sea can only be known by the market found for the fish in its bosom. The most bountiful crop of grain in the world has no value unless it is where it can be transported to those who would buy. A human soul never knows its power if it cannot impress its life on others.

Time was when a day's journey over a highway was eight or ten miles. Taverns and inns were erected at these distances in order that the proprietors might care for the needs of the weary traveler—and most of them doubtless were weary. When this nation began operations it held the elections in November, and, while there were at that time no states west of the Allegheny mountains, the inauguration was held on the following March in order that those interested might have plenty of time to get there.

That highway transportation should be more than a local problem refused to fix itself fully in the public mind, although various attempts to make a man look beyond his own rail fence were made when the Boston Post Road from New York to Boston was projected and the federal government put some money into the Old Cumberland Pike through Maryland. Gradually work was done beyond the county lines, until in 1891 New Jersey created a State Highway Department with power to aid the counties. That was thirty-three years ago, and it took twenty-five years for Uncle Sam to realize that highway development was a national responsibility.

In 1916 a Federal Aid Road Act was passed and the government found that thirty-one states had assumed more-or-less general supervision of the construction of a limited system of roads. This Act brought the remaining states into line, but there was no system or program. States found local jealousies as barriers in laying out a plan of inter-county roads and many a man has grown gray in the diplomatic service of attempting to connect up market centers and at the same time pass by every man's farm.

Then came the Act of 1921 with requirements that the states lay out a system of roads properly connected on the state lines. Here again the problem met opposition through various state ambitions and selfish ideals of special road promoters. This experience has carried us back to the editorial which appeared years ago in the well-known and seemingly broad-minded Philadelphia North American. It was in the days of the narrow-gauge and broad-gauge railroad tracks. A forward-looking citizen had suggested that a standard gauge be adopted so that people might travel from Philadelphia to New York without changing cars. The North American, wishing to protect its own brood of chickens, protested against the move, declaring that if such a scheme were put in force the people of the Quaker City would call on Father Knickerbocker and spend all their money with his merchants.

Three months ago the Federal Aid highway system of the United States received the final approval by both federal and state authorities. It is limited to seven per cent of the total road mileage of each state, until such mileage has been completed. To this system all the federal contributions are limited.

The total road mileage of the United States is approximately 2,886,000 miles, of which seven per cent is also approximately 202,000 miles. This mileage may seem to many people to be a very limited system, but it connects every market center of 5,000 people or more, joining up many towns of smaller size, and over ninety per cent of the entire population of the country will live within ten miles of the system. When completed it will not only enable you to start at Boston, pass through Buffalo, Cleveland, Chicago, Denver and Salt Lake City to San Francisco, but what is of far greater importance, you can start at any county seat in any county in any state in the Union and go to any other county seat in any other county in any other state in the Union and keep on an improved road.

Of the Federal Aid system of roads almost 50,000 miles have received some kind of surfacing. During the past year about 11,000 miles were improved. At

this rate of construction it will take ten years to complete the job. Up to date the federal government has contributed \$452,000,000. She is obligated to give \$75,000,000 more for the coming year. Since it is necessary that all concerned should be able to plan in advance for this work this present Congress will be asked to approve another three-year program in which the federal participation will be \$100,000,000 a year.

This may seem like a large appropriation, and it is a substantial help. However, it represents only two cents of each dollar that Uncle Sam paid out this last year to run the affairs of the general government. A high governmental official recently in a public address bemoaned the fact that the contemplated appropriation for the Army and Navy for the coming year is only \$625,000,000, while we are going to put out \$92,000,000 for roads. Why is it that his mental operations cannot make him understand that all federal money spent on roads is a basic element in our national defense? Federal taxes on automobiles and accessories the past year amounted to \$146,000,000, while out of his other pocket Uncle Sam paid \$72,000,000 for roads. We presume that the remaining \$74,000,000 went to the Army and Navy. Surely further comment on this division of the federal budget is unnecessary.

The economic value of an improved highway should need no exhaustive argument; however, allow me to give two concrete illustrations in passing.

In North Carolina very accurate figures show that gasoline consumption in 1921 was about 510 gallons per motor vehicle. In 1922 it had been reduced to 450 gallons. This saving of 60 gallons per car for each of the 225,000 motor vehicles at current prices amounted to \$3,300,000 per year. The past year North Carolina built over 1,000 miles of improved highways and expects to show a greater decrease in gasoline consumption.

A milk truck to the Baltimore market is compelled to operate for five miles over an unimproved road before reaching the paved highway. To all farmers on the paved road the price for delivery of their milk is three cents per gallon. But for those living on this five-mile stretch an additional charge of one-half cent per gallon from October to April is made to cover additional cost of gasoline and upkeep of the truck. These farmers are paying \$900 annually as an extra mud tax, or \$180 per mile, or interest at 5 per cent on \$3,600 per mile.

During the past year it is estimated that the American people spent one billion dollars on their highways of all kinds. Of this enormous amount 60 per cent was expended by the counties and townships. Of course, some of it went to fill ruts only to be washed out by the next rain, for the general public is too impatient to wait for real road construction. There are hundreds of motor bus and truck lines established throughout the country, attempting to give orderly service over earth roads that do not even have a patrol system of maintenance, but depend upon the farmer living along the road to ply a road drag when he can't work in the fields.

This is not only the motor age but it is also the budget age. Time is not far distant when every state, down to the smallest governmental unit, must operate under a budget and that means that the

states' share for roads will be considered alongside of the amounts demanded by the counties and townships. The time is already here when people want to know their possible maximum tax levy for any purpose before it is made. This will bring about more conservative methods of expenditure as well as stop the frittering away of funds each year for temporary road relief which must be done all over again when spring opens.

It is an established fact that in those states where the construction of the Federal Aid highway system has been expedited, the cost of developing and maintaining the feeder roads has been reduced in a substantial proportion. The more perfect and dependable the highway, the greater is the traffic over it and hence maintenance of other roads is simplified because of reduced traffic over them. The poorer your roads, the more they cost you.

Various methods are used today to finance this very important work. (1) Bond issues to be retired by a tax on all property; (2) bond issues to be retired by the automobile license; (3) pay-as-you-go from funds derived from a tax on all property; (4) pay-as-you-go from automobile license fees and gasoline tax. During the past year the states raised \$152,000,000 by automobile license, the fees running from \$5.69 per car in one state to \$25.73 per car in another state. The average fee for the United States was \$13.24 per car. The expenditure of this money was made according to the ideas of the various legislatures; 38 per cent went for road construction by the state, 35 per cent for road maintenance by the state and 27 per cent to the counties to be used for either construction or maintenance.

Thirty-six states now also have a gasoline tax ranging from one to four cents per gallon. In the main the gasoline tax is used for maintenance.

During the past year the states received their funds for the construction and maintenance of the Federal Aid highway system as follows: In the matter of construction, ten states received no funds from a direct tax levy on property; twelve states received all the funds by this method; all the funds in six states came from automobile licenses, and twenty-five states received a portion from the automobile license; twenty-one states received a portion from gasoline tax, while five had special sources. Averaging the whole forty-eight states, it shows that 51.8 per cent of the construction funds came from a tax levy or bond issue to be retired by a tax levy; 35.8 per cent came from the automobile license fees or bonds to be retired by the automobile license fees, 9.5 per cent came from a gasoline tax, and 2.9 per cent came from special sources.

As to maintenance, two states secure all the funds for maintenance by a direct tax levy; sixteen other states use a direct tax levy for a portion of the funds, and the remaining thirty states do not use a direct levy. The main source of revenue for maintenance is the automobile licenses. Seventeen states secure all of their maintenance fees from automobile licenses. There are but four states which do not secure at least a portion of their funds from the automobile license. Twenty-five states received funds for maintenance from the gasoline tax, one being as high as 90 per cent. There are three states

which have special sources for funds for this purpose.

A summarization of sources for maintenance funds for all of the states shows that 15.9 per cent are from a direct tax levy, 65.7 per cent from automobile license fees, 16.4 per cent from gasoline tax, and 2 per cent from special sources.

These statements clearly show that there is a great variety of ideas on highway finance. Rapid strides however have been made in the past few years along the line of a sane and forward looking policy. The following general principles are acceptable to most people who have given the matter any serious thought:

1. The total cash expenditures in each state for highway purpose shall be considered as the annual highway budget.

2. The annual highway budget should be adjusted to the relative needs for other public purposes.

3. All revenues secured from the motor vehicles or road users shall be set aside for highway purposes.

4. The highway within each state should be classified into four systems: interstate, state, county and local roads.

5. For the purpose of securing efficiency all expenditures of these systems should be correlated under engineering and economic supervision.

6. The order, character and extent of highway improvement should depend upon the relative future traffic requirements.

7. A much larger mileage of highways than at present should be immediately placed under patrol maintenance, and as far as possible made available for traffic the year around.

8. The large sums involved in highway expenditures and the broad training and experience required in handling them demand that political considerations be eliminated in all highway administration.

9. The cost of building and maintaining an adequate system of highways should be distributed in an equitable relation to the benefits derived. These may be summarized as follows:

- a. General benefits to society, such as influence, education, recreation, health, the national defense, the postal service, living and distribution costs.

- b. Special benefits, such as those to agriculture, manufacture, labor, railroads, mining, forestry and waterways.

- c. Benefits to property served.

- d. Benefits to the road user.

10. The wide variance in the present status of highway development in the several states prevents the adoption of uniform policies for securing the funds necessary to the annual budget. Generally speaking, however, those principles may be set forth:

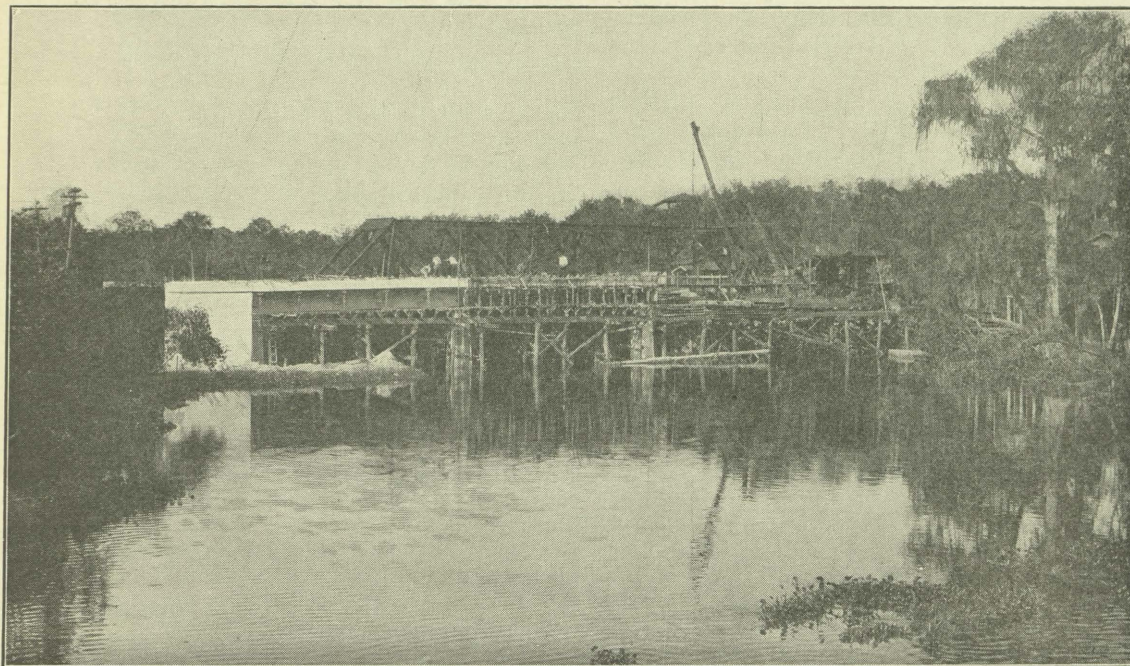
- a. States in the initial stage of highway development should issue bonds to defer that portion of the annual charge for construction which would overburden either property or the road user.

- b. States where original construction programs are well under way can, in the main, finance normal new construction from current funds, utilizing bond issue funds to defer the cost of special projects.

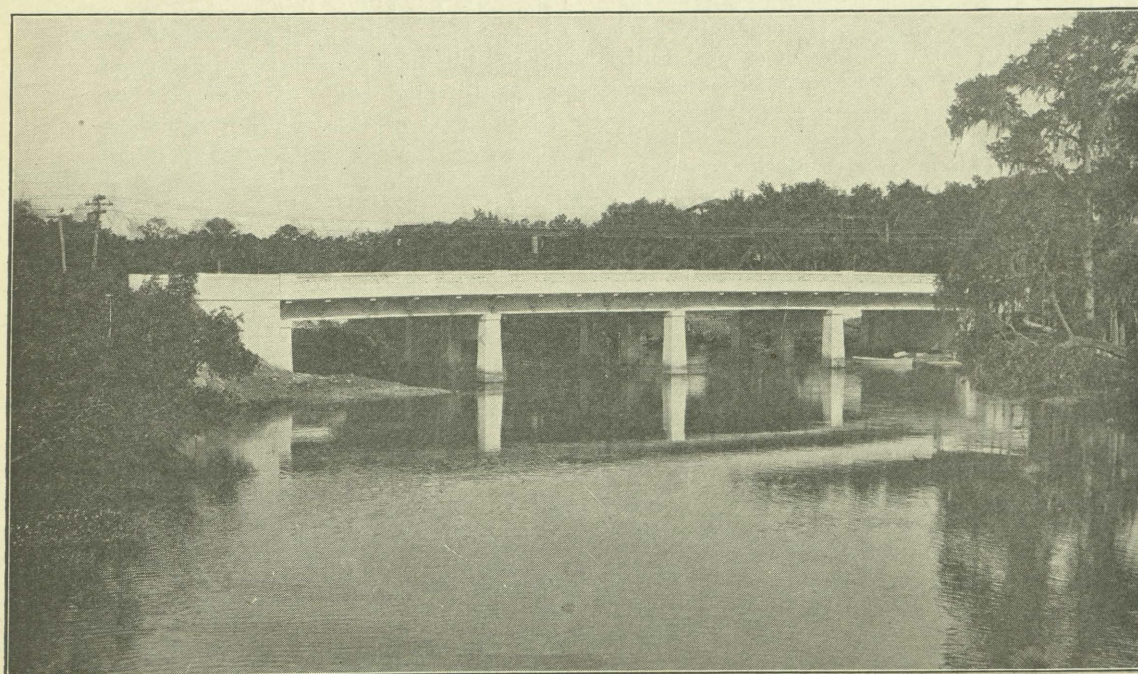
- c. States where original construction is largely completed are concerned chiefly with maintenance

PROJECT 583

Sulphur Springs Bridge over the Hillsborough
River on State Road No. 5,
in Hillsborough County



The Bridge as it Appeared Under Construction December 21st, 1923.



The Completed Structure.

ROAD BUILDING AN INVESTMENT, NOT AN EXPENSE

(Continued from Page Eight)

and reconstruction, and should depend on current funds save in cases of emergency.

d. The maintenance of interstate and state highways should be a charge against the road user.

e. Roads serving a purely local purpose will generally require only light upkeep and should properly be a charge against the adjacent property, which in these cases is the first and often the only beneficiary.

11. State highway bond issues should be serial in form and should mature over a period not exceeding forty years.

12. Highway bonds issued by political subdivisions of a state should be serial in form and should mature over a period not exceeding twenty-five years.

13. Serial maturities should be arranged so that the annual requirements of principal and interest will be as nearly uniform as practical.

14. Broad surveys made by the United States Bureau of Public Roads have demonstrated conclusively from forty to sixty per cent of the average costs of highway construction is expended in permanent improvements, such as grading, drainage, gradients, engineering and rights of way. Of the remaining cost, all but a small percentage of the surface can be salvaged in reconstruction. From these studies it thus appears that long term highway bond issues are justified where the expenditure does not unduly absorb the taxable capacity of the community and where adequate engineering and economic control is assured.

The big task before the American people today in this matter of perfecting their highway transportation system is the rapid completion of the Federal Aid highway system. The greatest menace in this work is the local drives to secure a division of the automobile and gasoline funds. By so doing the value of concentration is lost and the efforts dissipated. The vast majority of the traffic is over these lines and a division of the funds not only does not provide for the needs of the larger number but it also keeps up the additional transportation costs.

Some people would like to run the government—national, state, and local by popular subscription. They would then get off much easier than by the tax route. The man who is always howling about his taxes is never a man who gives either time or money for the public good, unless by so doing he may make big returns on his investment by a public demonstration of his gifts. Taxes are a levy on the property holder to pay the expenses incurred in carrying on organized society. The farther you are from the center of civilization the less you have to pay. If you don't want to pay taxes, go where there are no schools, no fire and police protection, no improved streets and highways, no hospitals, no art galleries, no operas, no electric lights and no libraries. There you can get food with a stuffed club and will not need a hunter's license; you will not need to pay a tariff on the thousand and one things that now add to your daily comfort.

Study your family budget for the past year and you will find that you have received more direct

benefit from what you paid in taxes than in any other outlay.

If all wealth would pay its share of the necessary public expense, even the large expenditures which now obtain in this country would not be a hardship to anyone. We are reliably informed that the wealth of this country is somewhere near four hundred billion dollars, and yet the total amount of property turned in for taxation last year was just a little over one hundred and twenty-nine billion dollars. It is true that we have much wealth which is tax-exempt—churches, schools and colleges, as well as state and municipal property, valued at probably thirty million dollars. There is also the much-talked-of tax exempt security, estimated as being close to twelve billion dollars, and yet the people who hold these securities are not tax dodgers; rather, they are loaning you money at a less rate of interest to carry forward some public improvement. Put all these items on one side of the scale with the one hundred and twenty-nine billion turned in for taxation, and you will still have less than one-half of our wealth which is paying any tax whatsoever.

Government may be extravagant, but it is no more extravagant than the people themselves. A statement from the Treasury Department in my hands shows that in 1921 the American people spent, exclusive of automobiles, \$11,254,000,000 for luxuries. These included tobacco, cosmetics, non-alcoholic beverages, candy, jewelry, chewing gum, pleasure yachts, races, pleasure resorts, etc. Statistics now being completed for 1923 will show this amount to be over thirteen billion dollars.

Immigrant remittances abroad plus funds spent by American tourists in Europe the past year almost equal the entire amount of money spent on all classes of roads and bridges in this country during the same period.

The tax bill for highways is not over 10 per cent of the total tax bill of the country, and yet Secretary of Labor Davis tells us that almost 8 per cent of our total tax bill goes to maintain institutions to care for the socially inadequate of foreign stock.

In the face of this thirteen billion dollars outlay for luxuries the cry made some years ago that a then "billion dollar congress" was forcing us into utter financial destruction makes us smile at the man who thought he was a John the Baptist crying in the wilderness of political extravagance.

The Federal Reserve Board in its annual report just out says that in 1923 the American people made more, spent more and saved more money than in any other year of the nation's history.

For fear I may have taken you far away from my text that you have forgotten it, allow me to repeat: "No expenditure of public money contributes so much to the National wealth as for building good roads."

I am quite sure that our President, when he wrote these words, was not only thinking of national wealth in terms of gold bullion but even more so, of those things which make for the betterment of human existence that cannot be reckoned in a bank book.

The open road not only enlarges a market for the farmer and reduces his transportation costs, but it puts his child in a community school where facilities

(Continued on Page 23)

Florida Greetings

I'm sending friendly greetings,
Of the good old-fashioned kind,
From the land of flowers and sunshine,
From the land of summer time.

From the land of rarest golden fruit,
From the land of soft sea air,
From the land of balmy days and nights,
Where folks are "on the square."

Where the sky is tinted deepest blue,
And a thousand lakes the same,
In the finest State along the coast,
From old Key West to Maine.

With rivers flowing gently on,
And ten thousand bubbling springs,
No wonder Florida's filled with song,
And nature's loveliest things.

You've longed full many a year, my friend,
For a land of pure delight,
Where stars and moon are at their best,
And the sun is always bright.

The climate here is ne'er too hot,
And the days are not too cold,
Here "folks" are always "growing young"
Instead of "growing old."

The aged here "renew their youth,"
And youth continues on,
And health, success and happiness
Are here for every one.

From the "rising" to the "setting sun,"
From "pole to pole" each way,
You ne'er will find a lovelier spot,
Go whereso'er you may.

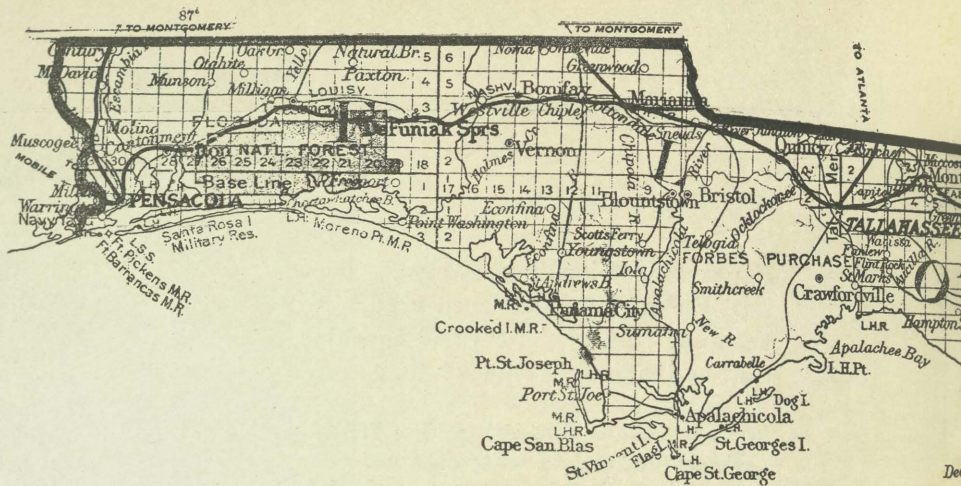
Here Nature did her noblest work,
And here, on every hand,
The choicest things of all the earth,
Make up this "Promised Land."

Here, the setting sun behind the pines,
As your homeward way you plod,
And birds' sweet notes, like angels' songs,
Make you feel so near to God.

—Written by W. G. S. Lowe, DeLand, Fla.,
May 9, 1924.

Contracts Awarded by State Road Department from January 1, 1924, to June 12, 1924

Contractor	Proj. No.	County	Length Miles	Length Feet	Contract Cost + 10%	Type
Bryson Const. Co.....	598-A	Jefferson	9.45		\$93,169.29	Sand-clay
Edgar Chapman	564-A	Charlotte	10.885		92,390.03	G. & D.
L. M. Gray.....	572	Bradford.....	7.00		96,765.59	Rock
L. M. Gray.....	607	Bradford.....	5.10		70,679.12	Rock
L. M. Gray.....	594	Bradford.....	9.10		117,132.35	Rock
Ed. Pettus	563	Osceola.....			12,062.60	Bridges
J. J. Johnston.....	562-A	Highlands.....		375	11,556.60	Bridges
Higgins Const. Co.....	36-A	St. Lucie.....		72	16,322.04	Conc. Bridge
Higgins Const. Co.....	620	St. Lucie.....		45	3,672.90	Timber Bridge
Boone & Wester.....	564-B	Charlotte.....			11,004.40	Timber Bridge
C. T. Dawkins.....	37-D	Alachua.....		60	31,552.40	Conc. Bridge
Ocala Lime Rock.....	575	Putnam.....	5.46		39,688.00	Rock
Boone & Wester.....	564-B	Charlotte.....	9.54		73,276.28	Surf.
Sou. Pav. & Const. Co....	44	Lake.....	10.529		395,611.38	Bit. Conc. Sur.
Barber-Fortin Co.....	625	Citrus.....	10.86		195,328.35	Rock
Barber-Fortin Co.....	626	Citrus.....	6.61		106,155.48	Rock
Sou. Pav. & Const. Co....	622	Lake.....	.215		8,217.80	Bit. Conc. Sur.
W. J. Conners.....	582	Okeechobee.....		3,122	177,941.61	Conc. & Steel
Weeks & Jackson.....	562-A	Highlands.....	5.37		29,110.62	Bartow Clay
Mickler & McLeod.....	629	Highlands.....	6.00		40,270.23	Bartow Clay
Myers Const. Co.....	630	Highlands.....	11.00		50,356.46	Marl
			107.11	3,674	\$1,672,263.53	



Federal Aid Roads in Florida

Through the courtesy of the Florida Times-Union (Jacksonville) we are enabled to present herewith an excellent map of the Federal Highway System in Florida. All the roads shown on the map are in the Federal seven per cent system, these being indicated by the heavy black lines. No other roads are shown, the other lines indicating railways in the State. The following statement, which is a brief and accurate recital of the facts in connection with the Federal System also appeared in the Times-Union in connection with the publication of the map:

The Federal-aid Highway System in Florida embraces 1,883 miles according to the Bureau of Public Roads of the United States Department of Agriculture. This system of highways has been approved by the State and approved by the secretary of agriculture as provided by the Federal highway act of 1921. According to this act the State Highway Departments were to designate a system of roads not exceeding 7 per cent of the total rural mileage for improvement with Federal aid and on which the government was to pay up to 50 per cent of the cost.

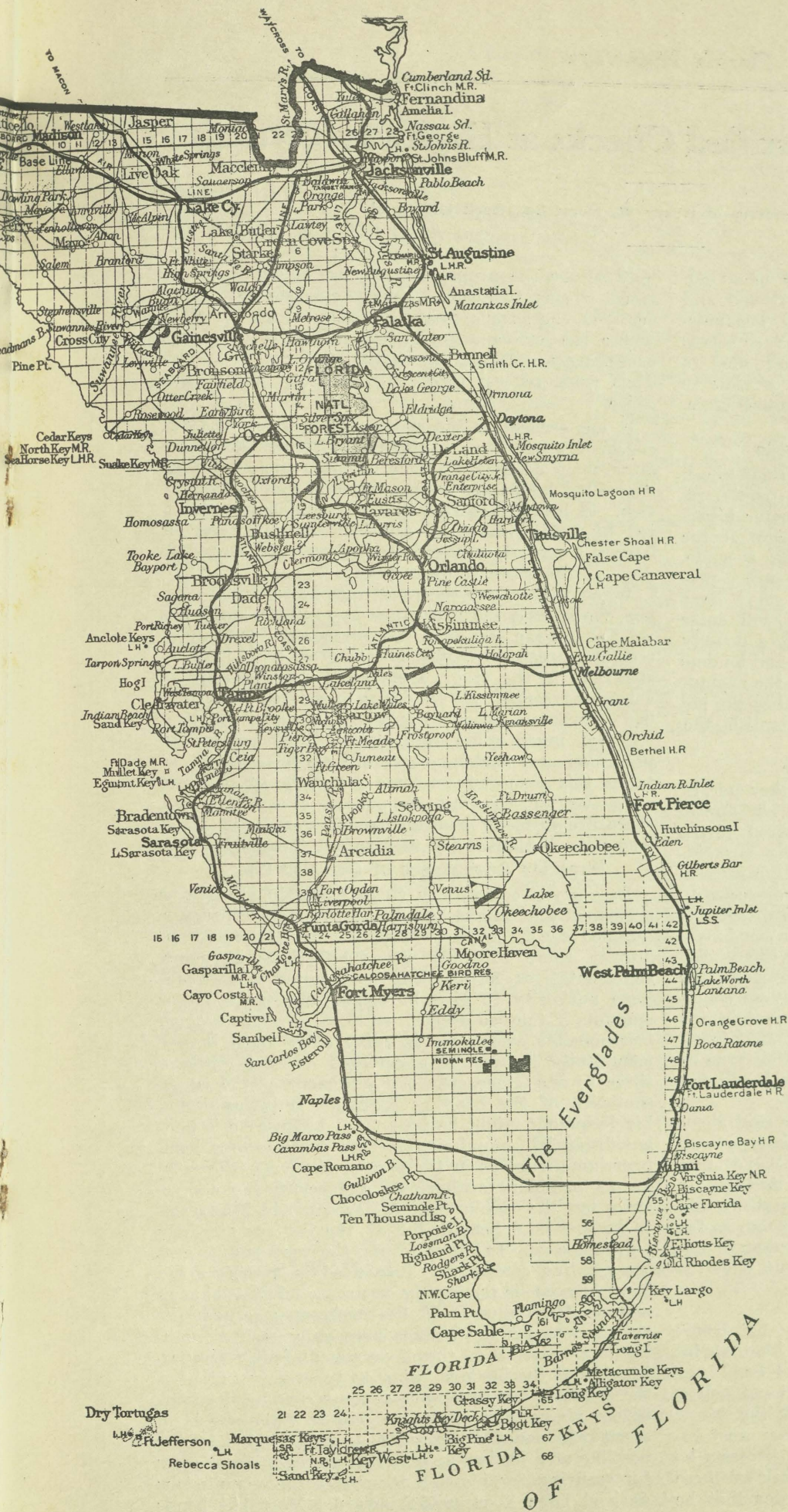
Appropriations for Federal aid totaling \$540,000,000 have been made since 1916 and considerable progress has already been made on the system. In this State the total apportionment has been \$5,399,550.

Although two of the appropriations were made before the Federal Highway Act restricted the expenditure to roads of the Federal System, by far the greater part of the expenditure has been on the designated system. On April 30 the bureau of public roads reports the status of construction as follows: 39 miles completed, 255 miles under construction and 13 miles approved for construction. There is still available for new projects not yet approved for construction \$408,668.

In addition the State has improved roads on the system independent of Federal aid.

The whole Federal-aid Highway System embraces approximately 170,000 miles of road. A careful study is being made of its present condition of improvement. An approximate estimate based upon incomplete studies is that at the end of the year there were about 60,000 miles of surfaced roads and 8,700 miles graded, which leaves nearly 110,000 miles yet to be surfaced.

To bring this system up to serviceable standards, therefore, within the full decade ahead, will mean a surfacing program of about 11,000 miles for each of the 10 years; this in addition to additions to the system, the separation of grade crossings, reconstruction, and such other work necessary.



STRAITS

Bidder's Bond vs. Certified Checks at Highway Lettings

By A. E. HORST, Secretary of Henry W. Horst Co., Rock Island, Ill.

As a means of guarding the integrity of a bid, especially in public lettings, the bidder's bond and certified check have their advantages and weaknesses. Being based on human judgment, neither serves perfectly its purpose, because both are intended to underwrite accurately the hazards with a view to reducing responsibility of the owners, whether state, municipal, or otherwise, to a minimum.

Purpose of Bid Bonds and Checks

It is intended that a bid bond or a certified check attached to a bid be a guarantee to the parties receiving this bid that the contractor will enter into a contract and fulfill all of the requirements of the plans and specifications upon which his bid is made. A bid bond or certified check attached to such a proposal, to be worth anything, therefore, must be a bona fide guarantee that the contractor will enter such a contract. It also reverts itself into a penalty upon the contractor if his bid is accepted and he does not enter into contract, the penalty being the amount of the certified check or bid bond. If either the bid bond or certified check does not accomplish the above purpose, it is worthless.

Use of Bid Bonds Decreasing

In many instances laws are such that they permit a bid bond to be attached to a proposal, but due to technicalities which are not easily discovered, if the contract were awarded to an exceptionally low bidder the bid bond might not be of any value whatsoever. For this reason the use of bid bonds seems to be on the wane in many states and localities. It appears, as above stated, that these bid bonds are and have been issued by underwriters without carrying any obligation on any of them to bond the bidder in case he is successful. Under these conditions the bid bond would appear to be worse than useless, and for that reason should be eliminated in all such localities where this is the case. This type of bid bond was formerly in effect in New York, but was dispensed with there some years ago.

Since much, in a general way, could be said about the questionable value of bid bonds of this type compared to certified checks, the speaker believes that for the purpose of this discussion, which is to apply specifically to highway lettings in Illinois, we should assume that a certified check and a bid bond, so far as the penalty is concerned, if the contract is not entered into, are on an equal basis and both have the same face value in this respect.

Advantages of Bid Bonds

Some of the advantages in submitting bid bonds with proposals at highway lettings, are, that no interest needs to be paid on amount of bid bond; nor are contractors' funds tied up if exceptional delays are caused in awarding contract, whereas, the use of certified check requires that the contractor must decide several days in advance just which projects he will bid. The amount of his bid on each of these projects must also be determined in order that he

may secure the proper amount and number of certified checks for each project, and see that these certified checks are properly delivered to the place where the letting is to be held. This is, of course, exceedingly difficult, especially at times when bidding work several states distant from one's home office.

It has seemed to the speaker that where certified checks are required at highway lettings there are apparently a lesser number of bids submitted than where bid bonds are in use, but still ample competition. It has also seemed that where bids are submitted by many who have not had the experience or have the capital or equipment to warrant them bidding on the large projects they do.

When we analyze the procedure in securing certified checks and the procedure in securing bid bonds we find, in the one case, it is necessary for the contractor to secure certified checks from a banking institution, in the other, from some representative of a bonding company. In order to secure, say a \$50,000 guarantee, it is the speaker's judgment that it requires much more preparation, deliberation, explanation and backing to secure certified checks totaling this amount from some one of the many representatives of bonding companies, especially when there are so many bonding company representatives who have the authority to give out these bid bonds.

Superior Advantages of Certified Checks

In a given community there probably are five or six banks that might be willing to give a contractor certified checks totaling \$50,000. In this same community there probably are three times as many representatives of bonding companies who would have authority to give bid bonds for much larger amounts if they so desired, so that the chances of an irresponsible contractor securing a bid bond in this community in lieu of a certified check is at least three to one, since only the judgment of the representative of the bonding company is involved and his judgment might be influenced because he is paid a substantial commission on the performance bond premium; whereas in the case of the bank, the cashier or president authorizing the certified check secures but the regular rate of interest which goes not to his personal benefit, but to the institution which he represents. In other words, the representative of the bonding company is interested in making a bid bond because he personally secures a substantial commission for doing so if the contractor secures the award, whereas the banker personally secures nothing in return. It is, therefore, not difficult to understand that the bank is going to be mighty sure that the contractor is in proper shape to handle the work before giving him a certified check, while the bond agent will endeavor to write as many bid bonds as possible at a letting in order to increase his chances for securing for himself personally the commissions derived from a successful award. Most bid bonds

are written the day of the letting when not as much consideration of the actual facts can be given as when certified checks are arranged for in a very deliberate way days in advance of a letting.

Promiscuous Writing of Bid Bonds

It is common knowledge that at some of the highway lettings there were many bid bonds written for contractors that were not even reported to the bonding companies' executive offices by agents writing them, indicating to what extent these practices have gone in the promiscuous writing of bid bonds by representatives of the bonding companies who happened to have the blank forms to execute. It is also known that some contractors have been given blank forms of bid bonds to fill out for any amount they saw fit.

Too Much Irresponsibility

The speaker recognizes the fact that there have been altogether too many irresponsible representatives of bonding companies writing bid bonds for irresponsible contractors and that the executives of some of the better class of bonding companies do not mean that this practice shall prevail, nevertheless, it does prevail, and until it is eliminated certified checks, which are not given out without serious consideration, seem to be a better guarantee and indicate that the contractor using them has used due diligence, and is properly qualified for the work.

Another advantage to the contractor in the use of a certified check is that he may select which bonding company he may wish to place the performance bond with when awarded the contract, which he may not be in a position to do before his bid is submitted. He also may elect, if it is permissible, to place personal collateral as a means of good faith in performing the contract rather than a surety company bond which may be less expensive to the owner and quite as effective as a surety company performance bond.

In general, therefore, the opponents of the bid bond cite the wholesale and promiscuous distribution of blank forms by surety companies' agents which, as above indicated, apparently throws the gates open to any one who can tabulate figures. It is held that a great number of irresponsible companies, who know nothing of estimating, and perhaps less about contractors' managing and financing, and who have no financial backing, are able to submit proposals. Once these proposals are submitted the bidder secures a surety bond, which he invariably can, and the state is obliged in most cases to award him the contract. Upon the heels of this action follows the whole gamut of dissension and evasion and improper performance on the part of irresponsible companies who bring suspicion upon all contractors and keep public construction in a state of demoralization.

Abolish Bid Bonds

The speaker believes that the abolition of bid bonds at highway lettings would not be discouraged by the reliable and conservative bonding companies, thereby permitting certified checks to be used under all circumstances. In fact, several representative men of such bonding companies have encouraged the use of certified checks. What has begotten the call for the bid bond has been chiefly the fact that many states and municipalities have taken a bunch of bids under advisement for a month or longer, in which case a large certified check outstanding would be

quite a large tax on the contractor. On the other hand, if there were a uniform practice of returning certified checks immediately after a few days' consideration of the bids, except the successful bidder's, who in the meantime has qualified with the proper bond, the objections to the use of a certified check would not be great. There should be no objection and no hardship on the state—if the low bids are taken under advisement for more than several days—to permit the contractor to replace his certified check with any other good and equal security until award or rejection of his bid, in order to permit the use of funds involved in the certified check.

It is my opinion if certified checks—and certified checks only—were required at highway lettings, and the amount of the certified check be somewhere between 7½ and 10 per cent of the bid, that the tendency would be to secure bids only from contractors who are responsible to carry out the work upon the basis of their proposals, and in accordance with plans, specifications, and time of completion. Contractors would be much more careful in building up their proposals, due to the fact that their own perfectly good certified check worth that much of their own cold cash, which they alone are responsible for, could be held as liquidated damages if their bid were accepted and they refused to enter into contract.

The foregoing paper by Mr. Horst was read at the recent Road School conducted at the University of Illinois at Urbana.—Municipal and County Engineering.

SLOW UP!

Fewer automobile accidents would occur if motorists realized the tremendous amount of ground they cover per second, even within the speed limit.

A lately compiled table reducing speed to feet traveled per second, follows:

10 miles per hour covers	14.66 feet per second.
15 miles per hour covers	22 feet per second.
20 miles per hour covers	29.33 feet per second.
25 miles per hour covers	36.66 feet per second.
30 miles per hour covers	44 feet per second.
35 miles per hour covers	51.33 feet per second.
40 miles per hour covers	58.66 feet per second.
45 miles per hour covers	66 feet per second.
50 miles per hour covers	73.33 feet per second.
55 miles per hour covers	80.66 feet per second.
60 miles per hour covers	88 feet per second.

—Santa Fe New Mexican.

He Can't Complain Now

"Your honor," said the auto thief, "I was foodless, friendless and homeless."

"My man," said the judge, "you move me deeply! Food, shelter and companionship shall be yours for the next nine months."—Judge.

Naturally

The inquisitive old lady was bending over the bed of a wounded soldier whose head was swathed with cotton and linen.

"Were you wounded in the head, my boy?" she asked.

"No'm," replied a faint voice. "I was shot in the foot and the bandage has slipt up."—The American Legion Weekly.

The Civilizing Value of Highways Seen by Robert L. Stevenson

Robert Louis Stevenson, whose fame has become immortal as author of "Treasure Island" and other stories, showed during his lifetime a pioneer appreciation of the civilizing value of highways. In an address to the Samoan Chiefs on the opening of the Road of Gratitude, he said the following:

"I wish every Chief in these islands would turn to, and work and build roads and sow fields, and plant food trees, and educate his children, improve his talents—not for the love of Tusitala, but for the love of his brothers, and his children, and the whole body of generations yet unborn. Chiefs! On this road that you have made feet shall follow. . . .

Our road is not built to last a thousand years, yet in a sense it is. When a road is once built, it is a strange thing how it collects traffic; how, every year as it goes on, more and more people are found to walk thereon, and are raised up to repair and perpetuate it, and keep it alive; so that perhaps even this road of ours may, from reparation to reparation, continue to exist and be useful hundreds and hundreds of years after we are mingled in the dust. And it is my hope that our faraway descendants may remember and bless those who labored for them today."

THE INSPECTOR'S PRAYER

Teach me to see that the batch is mixed one and one-quarter minutes, and that to finish the concrete according to specifications requires forty-five minutes.

Help me to have a dry batch even though it looks wet to the District Engineer through his foggy glasses.

Teach me not to smile at the Assistant Construction Engineer with his puttees and spurs, for they are a necessity—especially the spurs, for the opening of expansion joints.

Help the Assistant from the Laboratory when I call him on the job; and give him the backbone to say "Rejected" or "Accepted" and not "as far as I am concerned."

Teach the Engineer of Tests that I am not a truck with three cylinders—namely, one 6-inch and two 12-inch, nor a pack mule on the desert.

And give me the strength and courage, if the District Engineer hasn't the heart, to tell the contractor what's what, that I may carry out his instructions.

Teach me that the contractor may be White, that he has no Frame-up, or nothing on Jackson, and never puts one over on Ritchey.

Teach me so to live and do my work that when my fourteen hours of labor is done I can look every one of my overlords straight in the eye.—Penn Ways.

PARKING DE LUXE

Los Angeles and New York, the twin cities which have always prided themselves on being just a wee bit more up-to-date than the rest of the country, will have to take off their hats to Chicago.

The new Tower of Jewels, a forty story building being erected in the Windy City to house the diamond trade, is building a twenty-five story garage in its core. No ramps. No gas. No car moving under its own power.

The machines will be driven upon a steel platform, and an automatic gravity elevator will do the rest. At a time when everyone wants to get his car out at the same time—as usual—that elevator will be kept busy.

Now we may expect to hear of forty story garages in New York, soon to be followed by fifty story buildings in the pride of I-o-way, but Chicago can also claim the credit for having shown the way.—Idaho Highways and Public Works.

THIRD CLASS OR SECOND

As the law defining the type of publication entitled to second class mailing privileges was passed thirty years ago, it is no wonder that bulletins of state highway departments were not included. The good roads movement had been born, but it had not grown very big away back in 1894.

Today, when state boards of health, and state departments of agriculture, together with trade unions, fraternal organizations, literary, historical, and scientific societies, and educational institutions, can mail their publications at a cost of one cent for each four ounces, this magazine must pay double that amount.

Representative Smithwick of Florida has introduced a bill in Congress to give the publications of state highway departments the same consideration that is granted to our friends in the departments of health and agriculture. With the postal service facing its customary deficit, it may be difficult to get favorable action on any suggestion to reduce its revenues, but as a matter of simple justice this bill ought to pass.—Idaho Highways and Public Works.

Tooting the Cow in Japan

A traveler in Japan tells of curious notices he saw in shop windows, and especially an official municipal notice to motorists: "If a cow obstruct, toot 'er soothingly; if she continues to obstruct, toot 'er with vigor; if she still obstruct, wait till she pass away."

Yes, We Have No

Lady Prospect—"Are you sure you have shown me all the principal parts of this car?"

Eager Agent—"Yes, madam, all the main ones."

"Well, then, where is the depreciation? My husband told me that was one of the biggest things about a car."

FACTS AND FIGURES OF AUTOMOBILE INDUSTRY 1923

Employment

Number of persons employed in motor vehicles and allied lines	2,750,000
Total car and truck dealers	43,607
Public garages	50,911
Service stations and repair shops	67,802
Supply stores	65,988

Production

Cars and trucks	4,014,000
Cars	3,644,000
Trucks	370,000
Previous record motor vehicle production, 1922	2,659,064
Percentage increase over 1922	50%
Production of closed cars	1,235,000
Per cent closed cars	35%

Values

Total wholesale value of cars	\$2,243,285,000
Total wholesale value of trucks	267,500,000
Total wholesale value of cars and trucks	2,510,885,000
Tire production	54,000,000
Wholesale value of motor vehicle tire business	760,000,000
Total wholesale value of parts and accessories, exclusive of tires	1,310,000,000
Average retail price of car, 1923	811
Average retail price of truck, 1923	1,080

Exports and Imports

Number of motor vehicles exported (from U. S. factories and Canadian plants owned in U. S. A.)	328,333
Number of motor cars exported	189,884
Number of motor trucks exported	37,049
Number of assemblies abroad of American cars	101,400
Value of motor vehicles and parts exported (including engines and tires)	\$234,129,000
Rank of automobiles and parts among all exports	6th
Per cent of motor vehicles exported	8%
Imports of motor vehicles	890

Registration

Motor vehicles registered in U. S. (approximately)	14,500,000
Motor cars	12,880,000
Motor trucks	1,620,000
World registration of motor vehicles	17,000,000

—The Maine Motorist.

LACK OF GOOD ROADS EXPENSIVE

That the lack of roads is just as expensive as the cost of building hard surfaced highways is being brought home by highway economists throughout the country. The cost of highway transportation is made up of two items. Item No. 1 is the cost of building and maintaining the road. Item No. 2 consists of the cost of operating vehicles over the roads. This is smaller, of course, because it is considerably cheaper to drive a car or truck over a smooth, paved surface than over a muddy, earth road or a gravel road that has been allowed to become full of ruts and bumps.

Highway Engineer H. E. Phelps, of the College

of Engineering, State of Washington, in discussing the effects of road surfaces on the cost of running autos and hauling roads, says: "If we had concrete surfaces to drive on, we could pay a tire tax of 67 per cent and still spend no more money for tires than is required for our present road surfaces."

He pointed out how experiments have proven how a gallon of gasoline is needed to haul one ton fourteen miles on earth roads, twenty-one miles on gravel, and thirty-one on concrete.

"It is interesting to translate these figures into the cost of gasoline per mile of travel for the average automobile," he continued. "Taking the weight of an automobile as 1.4 tons with gasoline costing 20 cents a gallon, each mile of travel would cost 2 cents for gas on earth roads, 1 1-3 cents on gravel, and only 90-100 of one cent on concrete. In other words, when the car reaches the end of the concrete and starts down a gravel surface, the extra gasoline required costs as much as a tax of 6 2-3 cents per gallon. And when it reaches the end of the gravel and starts down the average poor earth road, an added cost of 10 cents per gallon is the traveler's tax caused by the poor road.

"Thus these figures prove that our poor roads place a gasoline tax upon us three to eight times as great as the tax the legislature placed on gasoline for good roads. And this poor road tax has the added disadvantage that we receive no returns from its expenditure.

"This gasoline tax of 6 cents to 10 cents a gallon placed upon us by poor roads is not the only tax we pay to poor roads. Definite figures are lacking, but experience on gravel indicates that such roads are extremely hard on tires. They also place upon us taxes of unknown magnitude because of the added repairs required and the shorter life of automobiles used on poor roads as compared with those run on good road surfaces."—Texas Highway Bulletin.

PORTLAND TRAFFIC PROBLEM IS AS OLD AS THE ENGLISH STAGE COACH

The municipal authorities of the city of Portland, Maine, are now struggling with the traffic problem caused by the constantly increasing flow of automobiles, and especially with congestion caused by parking. Traffic regulations far antedate the advent of motor vehicles. In an old English case of *Rex v. Cross*, 4 Camp. Reports, 224, the court laid down the law, which in principle is wholly applicable to present day conditions. It reads:

"And is there any doubt that if coaches on the occasion of a route wait an unreasonable length of time in the public street and obstruct the transit of his majesty's subjects who wish to pass through it on carriages or on foot, the persons who cause and permit such coaches to so wait are guilty of a nuisance? * * * A stage coach may set down or take up passengers in the street, this being necessary for public convenience; but it must be done in a reasonable time, and private premises must be procured for the coach to stop in during the interval between the end of one journey and the commencement of another. *No one can make a stable of the king's highway.*"—The Maine Motorist.

Status of Road Construction

DATE APRIL, 1924

Project No.	Contractor	Road No.	County	Total Length Miles	Clearing Miles	Grading Miles	Base Miles	Surface Miles	Type	Per Cent Complete
18	Morgan-Hill Paving Co.....	3	Putnam	12.80	12.80	12.66	12.80	12.80	B. M.	99.40
27-A	C. F. Lytle	2	Columbia	5.67	5.67	5.67	....	5.67	C.	100.00
27-B	C. F. Lytle.....	2	Columbia	6.68	6.68	6.34	....	6.68	C.	98.48
32	State Forces	4	Nassau	10.00	10.00	10.00	10.00	8.80	B.M.	94.50
34	Union Indemnity Co.....	7	Escambia	10.00	10.00	8.90	....	7.00	C.	71.30
35	Hancock Brothers	1	Escambia	5.00	5.00	4.99	....	5.00	C.	99.90
36-A	H. L. Clark & Sons.....	4	St. Lucie	7.76	7.76	7.37	6.98	4.03	B.M.	74.00
36-B	C. F. Lytle.....	4	St. Lucie	7.12	6.41	5.69	....	....	C.	11.20
37-A	F. W. Long & Co.....	2	Alachua .....	.70	.60	.01	0.00	0.00	S.A.	10.00
37-C	F. W. Long & Co.....	2	Alachua	3.26	3.09	3.09	.81	0.00	S.A.	37.00
37-D	Fla. Drain. & Const. Co....	2	Alachua	2.14	....	0.85	....	....	G.	4.00
37-E	Wm. P. McDonald Const. Co	2	Alachua	7.96	7.64	7.00	5.25	0.00	S.A.	42.50
40-A	C. F. Lytle	4	Brevard	16.17	5.66	0.00	0.00	....	R.	0.70
40-D	J. Y. Wilson.....	4	Brevard	6.72	2.01	.87	0.00	....	R.	2.50
40-E	Langston Const. Co.....	4	Brevard	13.60	3.26	2.04	0.00	....	R.	2.80
501	State Forces	6	Calhoun	41.19	41.19	39.94	....	37.00	S.C.	98.00
503	State Forces	2	Charlotte	20.18	20.18	20.18	....	18.76	S.C.	96.00
505	State Forces	2	Columbia	11.80	11.80	11.80	10.74	....	R.	85.50
507	The Barber-Fortin Co.....	4	Flagler-Volusia ..	10.00	10.00	10.00	8.50	....	R.	75.00
519	State Forces	5	Manatee	3.50	3.50	3.15	2.83	0.00	B.M.	70.00
521	Morgan-Hill Paving Co	4	Nassau	12.41	3.68	1.24	0.00	....	R.	2.80
523	M. J. Cole (Co. Funds).....	8	Okeechobee	8.75	8.75	6.56	7.00	....	R.	80.10
532	State Forces	3	Volusia	18.90	18.90	18.90	18.90	11.34	B.M.	85.00
534-A	J. D. Donahoo & Sons.....	24	Brevard	2.65	2.65	.95	0.00	....	R.	36.00
534-B	Noll & Noll.....	24	Brevard	11.85	11.85	11.85	6.87	....	R.	57.00
536	County Forces	1	Gadsden	5.50	5.50	5.50	....	5.50	S.C.	100.00
538	State Forces	2	Marion	10.92	10.92	10.92	10.92	....	R.	95.00
539	County Forces	5	Marion	11.30	11.30	11.30	4.40	....	R.	31.96
544-A	F. S. Whitney	5	Pasco	8.75	8.75	8.48	2.80	....	R.	29.90
544-B	The Barber-Fortin Co.	5	Pasco	11.33	6.00	5.60	0.00	....	R.	18.00
545	Broadbent & Groeting	5	Hernando	9.51	9.51	8.56	2.85	....	R.	33.00
553	State Forces	2	Marion	9.15	9.15	8.05	3.20	....	R.	30.31
554	The Barber-Fortin Co.	4	Brevard	5.00	5.00	5.00	4.98	....	R.	99.00
560	State Forces	6	Calhoun	20.00	16.00	14.00	....	14.00	S.C.	68.00
562-A	Southern Surety Co.	8	Highlands	5.37	5.37	5.37	....	....	G.	100.00
562-B	W. P. Kennedy Const. Co. ..	8	Highlands	10.71	10.71	10.71	10.71	5.35	S.A.	78.00
564-A	Edgar Chapman (Co. Funds).	5	Charlotte	10.88	2.28	2.17	....	....	G.	20.00
564-B	Boone & Wester	5	Charlotte	10.31	10.31	8.91	....	....	G.	95.00
565	State Forces	1	Madison	15.64	6.72	6.72	....	0.63	S.C.	68.20
570	Morgan-Hill Paving Co.....	5	Manatee	3.96	3.96	3.96	3.96	2.69	B.M.	87.00
571	Hunter & Gladwell.....	1	Madison	14.73	3.38	4.42	....	0.00	S.C.	24.24
572	L. M. Gray.....	13	Bradford	7.30	7.30	7.30	3.65	....	R.	46.00
574	State Forces	9	Madison	11.66	10.61	4.79	....	....	S.C.	57.00
575	State Forces	3	Putnam	5.46	5.18	4.91	2.78	....	R.	55.20
576	S. T. Buchanan & Son.....	5	Sarasota	5.68	0.15	0.00	....	....	G.	2.50
579	State Forces	1	Holmes	8.62	7.32	6.46	....	5.60	S.C.	72.00
584	Noll & Noll.....	24	Osceola	2.00	2.00	2.00	....	2.00	Brick	100.00
586	State Forces	1	Jackson-Wash'ton.	17.37	2.08	2.08	....	.86	S.C.	34.00
589	County Forces	5	Lee	8.27	8.27	8.27	8.27	....	R.	100.00
594	State Forces	13	Bradford	9.095	9.09	8.64	....	....	G.	96.50
594	L. M. Gray	13	Bradford	9.095	....	....	2.00	....	R.	22.00
597	J. Y. Wilson	4	Volusia	16.24	4.06	3.25	0.00	....	R.	4.74
598-A	W. J. Bryson Paving Co....	1	Jefferson	9.45	4.25	2.55	....	0.00	S.C.	30.00
599	M. M. Boyd	2	DeSoto-Charlotte.	7.10	6.39	4.61	....	....	G.	30.00
604	C. F. Lytle.....	4	Volusia	7.72	0.15	0.00	0.00	....	R.	.002
607	State Forces	13	Bradford	5.10	5.10	3.81	....	....	G.	76.00
607	L. M. Gray	13	Bradford	5.10	....	....	0.00	....	R.	0.00
608	State Forces	4	Brevard	9.29	6.22	1.67	0.00	....	R.	5.00

Totals 422.11 380.15 151.20 153.71

TOTAL MILES COMPLETE.

	Clearing Miles.	Grading Miles.	Base Miles.	Surface Miles.
Completed March 31, 1924.....	992.87	928.15	300.40	551.60
Completed April 30, 1924.....	8.65	31.41	18.96	10.24
Total April 30, 1924.....	1001.52	959.56	319.36	561.84

	Concrete.	Brick.	S. Asphalt.	Macadam.	Rock.	Sand Clay.	G.&D.	Total
Completed March 31, 1924.....	75.89	25.12	63.25	124.09	75.39	303.08	196.19	863.01
Completed April 30, 1924.....	1.53	.03	2.04	1.87	14.26	9.39	2.63	31.75
Total April 30, 1924.....	77.42	25.15	65.29	125.96	89.65	312.47	198.82	894.76

Note—The above tabulation shows only those projects that are actually under construction at the present time and does not show projects that have been previously completed. However, the table, "Total miles completed," at the foot includes all projects that have been completed prior to April 30th, 1924, and the amount completed in April also. The abbreviations used are as follows:

C.—Concrete. S.A.—Sheet asphalt. B.M.—Bituminous macadam. R.—Rock base. S.C.—Sand clay. G.&D.—Graded and drained.

ENGINEERING FEATS IN DEVELOPING FEDERAL HIGHWAYS

A caisson which may be of record-breaking depth was launched recently on the Raritan River at Perth Amboy, New Jersey. It is to be used in the construction of the Perth Amboy highway bridge, one of the main outlets from New York City to the South, being built by the State of New Jersey, and the Bureau of Public Roads, United States Department of Agriculture, as a part of the Federal Aid highway system.

The caisson is a large water-tight framework of heavy timbers which has been constructed on the banks of the stream. At high-water today it was launched with a spectacular splash and was immediately towed to mid-stream where the work of sinking it to the stream bed was begun. The frame work will be filled with concrete, a working chamber being left at the bottom and openings through which workmen can ascend and descend while excavating to solid rock 115 feet below the water surface. Compressed air will be used to keep the water from entering the working chamber and passage ways. While workmen known as "sand hogs" excavate the material in the river's bed allowing the caisson to settle gradually downward, other workmen at the surface will build up the timber framework and concrete filling.

Soundings by engineers indicate that solid rock will not be encountered until a depth of 115 feet is reached. This is within nine inches of the greatest depth to which any foundation has been sunk with the aid of compressed air, and possibly the record may be exceeded. This means that in the later stages of the job the excavators must work under an air pressure of almost fifty pounds per square inch. Near the surface where the pressure will be light they will work eight-hour shifts, but this will be decreased with depth and shifts may be as short as two hours near the bottom.

Although the workmen may have to go to record breaking depths, no serious trouble is anticipated from "the bends," a disorder resulting in numerous deaths on early jobs using compressed air. The trouble manifests itself when a workman comes from below and is released from heavy air pressure. A medical chamber has been constructed where the victim of an attack can be placed again under pressure which can be reduced very gradually. This has been found a very effective treatment.

The bridge is being constructed at a cost of \$4,000,000. It is to replace the present structure near the same site, which has been found inadequate for the heavy traffic averaging several thousand vehicles daily. This traffic has been greatly inconvenienced by opening of the draw span averaging about thirteen times daily. Every time the draw is opened a long line of vehicles is kept waiting to pass. The new bridge is to be built at a sufficient height above the water so it will not be necessary to open the bridge more than one-third as often as at present, and the length of time required for opening will be greatly reduced.—Michigan Roads and Pavements.

A Good Trip

Another advantage of crossing crossings carefully is that you get on the other side.—Dallas News.

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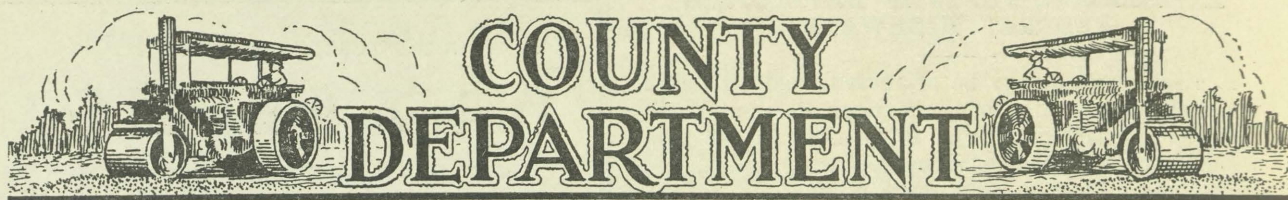
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Splendid Progress Reported on Eight Bond Issue Roads

Work Being Done With as Little Delay and Inconvenience as Possible—Few Detours, However, Can't Be Eliminated

Splendid progress is being made on the eight roads being constructed by Duval County under the \$2,550,000 road bond issue, according to the weekly report of County Commissioner C. S. Coe, to the board of county commissioners. The work is being done with very little delay or inconvenience to motorists, although a few detours are necessary.

According to the report, it is desirable for traffic on the St. Augustine road during working hours to detour around the stretch between the Mandarin road and Loretto through the Mandarin road to the intersection of the Loretto road. Both of these highways are shell roads in good condition and furnish a nice drive. They will be plainly marked with detour signs.

During the next few days it may be necessary to detour Atlantic boulevard traffic over the Hogan and Love Grove roads, while the fill at Little Pottsburg creek is being raised and a shell surface placed on it. The report also warns against using the second and third sections of the Monerief road, declaring them impassable at this time.

The San Jose boulevard is very near completion, as is the Orange Park road. Two bridges are being constructed on the first-named road, while concrete curb and brick is being laid on the other highways. A few more days will see the completion of the laying of asphalt on the southside drive.

The report in full follows:

St. Augustine Road

The contractor's crew, which is taking up brick and laying rock base, is now working between Loretto and the Mandarin road, and during working hours, between 7 a. m. and 5 p. m., through traffic is asked to detour by way of the Mandarin road and the Loretto road, getting back to the St. Augustine road at the schoolhouse at Loretto. This is a shell road in good condition, and makes a very pleasant drive, although it is about two miles longer than the St. Augustine road between the same points. Nights, Sundays and holidays no detour is necessary, the road being wide open, although there is a road roller standing on the road protected by flags and lights, and a short stretch of sand also will be encountered, but this is comparatively hard and not difficult to negotiate. It is expected that the construction of concrete curb will commence between Davis creek and Bayard some time during the ensuing week, and the laying of brick will follow this as soon as the concrete has been given a reasonable time to cure. Grading between Bayard and the county line is making good progress, but without interference to traffic to any material extent.

Atlantic Boulevard

It is expected that the two remaining temporary bridges on this road will be removed during the ensuing week, but, while still in use, the greatest care should be used in crossing these bridges on account of the steep approaches. The fill just east of Pottsburg creek does not appear to be settling at this time, and an effort will be made to raise this fill to the level of the permanent grade during the ensuing week, after which it is expected a temporary top of live shell will be laid, leaving this fill in satisfactory condition for traffic. However, while this fill is being raised it may be possible that for two or three days during the week a good share of the traffic will need to be detoured by the way of the Hogan road and the Love Grove road, getting back to Atlantic boulevard near Aiken's garage, just east of Little Pottsburg creek. Ample notice will be given if this detour is necessary, and the road will be thoroughly covered by detour signs.

The concrete road construction is showing at this time a progress of about 600 lineal feet per day. It is fully expected that this progress will be very much increased a little later. This work is being done without much delay to traffic, although in connection with the dumping of every load of concrete, a short delay is always necessary. These delays, however, occur only during working hours. Nights and Sundays the road is practically clear.

King's Road

Base material is being placed very rapidly between Dinsmore and the county line, and while this work is causing some delay to traffic, in general a very good spirit of co-operation has been shown by the traveling public and the contractor. Good progress is being made on the foundation work just south of the Logan farms. The detour around these two bridges does not seem to be causing any serious inconvenience to the traveling public. It is urged, however, that the greatest possible care should be used covering these detours.

Main Street Road

Grading has continued at various points north of Cedar creek, but without serious interference to traffic on the present road. However, in a few places a small amount of soft material is on the present road, and immediately following rain becomes rather slippery, and it is therefore urged that the road be covered at reasonable speed, especially in damp weather. The temporary bridge just north of the home of Ray

(Continued on Page 23)

REMOVAL NOTICE

ON OR ABOUT JULY 1ST, 1924, WE WILL MOVE OUR OFFICE AND WAREHOUSE TO
OUR NEW BUILDING, 345 WHITEHALL STREET, WHERE WE HAVE
THREE TIMES OUR PRESENT FLOOR SPACE

This change was made possible and necessary by the increased demands of our customers for shipments from Atlanta stock. We expect to increase the number of different types of machines and repairs so that we can take care of all your requirements immediately. Thanks for your past business, and may we have your future orders. A partial list of our new Atlanta stock follows:

No. 2 and 2 1-2 Std. Western Wheeled Scrapers
No. 1-2 and 3 Western Double Bottom Drags
No. 1-2 and Three Western Runner Drags
No. 1-2 and 3 Western Railroad Plows
No. 5-6 and 7 Western Contractor's Plows
5-6-7 and 8' Blade Western Road Machines
2 and 3 Blade Western Road Drags
Western Three Way Road Drags

Austin Ten-Ton Road Rollers—Steam and Gas
Austin 5 and 8-ton Tandem Rollers
Austin 3-4 and 5-ton Pup Rollers
Austin Street Sprinklers
Austin Pressure Planers
Austin Planetainers (Road Drags)
Austin Street Sweepers
Austin 7-8-9 and 10' Road Machines

The Austin-Western Road Machinery Company

CHICAGO

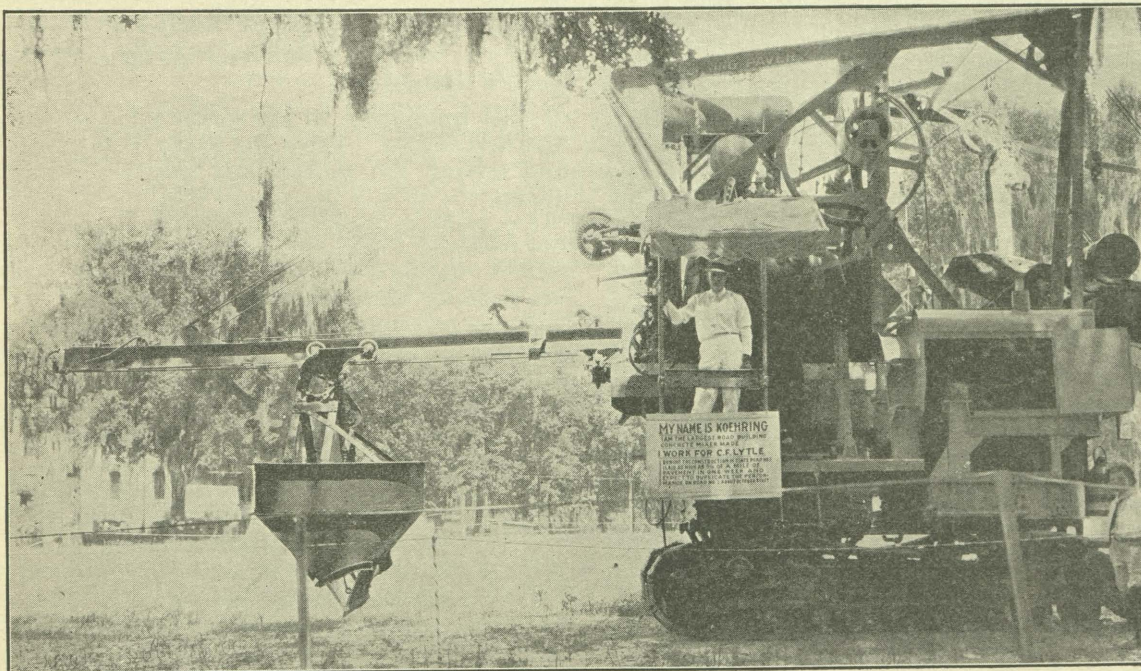
Atlanta Branch—345 Whitehall Street

P. A. Duke, Branch Manager

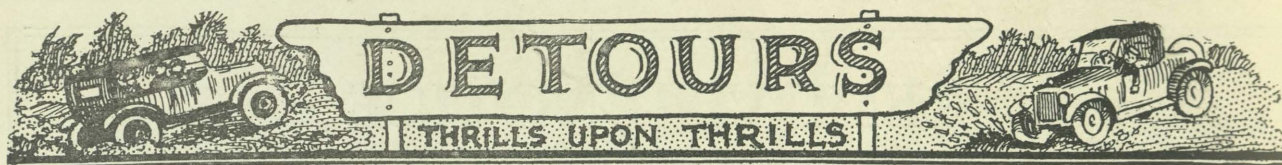
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Type of Equipment used on Project 27-A, Road 2, Columbia County, Florida's Newest Concrete Road.



The Personal Touch

An interesting advertisement which appeared in the college paper:

"If the gentleman who took my psychology notes from the cloak-rack will return them before exams, no questions will go unanswered."—Colorado Dodo.

Not So Slow

"Huh!" sneered the city comedian to the rural audience. "I suppose you'd laugh at that one next summer."

"No," replied a voice in the audience, "it was last summer."—Farm Life.

The accident experienced by Major Martin teaches another lesson. No mountain should be permitted to park without showing a tail-light.—Marion Star.

How Times Do Change

Yesterday.—When some village cut-up got reckless and whipped up the old nag to a gait of ten miles an hour right down the main street of the village on Sunday afternoon with the village queen by his side, the natives would run in the yard and latch the gate, the chickens would fly over the fence, the dogs would run under the house, the kids would climb the trees, the constable would shake his fist and "Gol Darn" him, and you could hear good old sister Sarah say, "What's this world comin' to—the end certainly can't be far off—such reckless speed endangering the whole community," and the village queen would say, "Oh, Billie, please don't drive so fast, I'm so frightened I feel fainty."

Today.—The town sheik makes 45 miles an hour right down the boulevard, one hand on the steering wheel and the other around some girl—the dogs snap at the tires, the chickens ride the bumpers. Sweet Mamma says, "Step on it, Daddy. Who was that just passed in that Ford?"

"That was Aunt Sarah."

"What did she say?"

She said, "'Scuse my dust."

The H. C. of L.

"Look here, Malvina," cried the old man, shaking the bills the R. F. D. carrier had just left. "You must think I'm made of money! Mustard plasters from Druggs, fifty cents; six teeth pulled at Dr. Pollard's, three dollars. There's three dollars and a half spent in one week for your own private pleasure."

No Exception

At Winterton a tourist called out to an aged colored person: "Say uncle, how far is it to Wellington?"

"Well, suh," answered the darky, "I kin seurely say. It useter be 'bout twenty-five miles, but ev'y-thing's gone up, so I kinder reckon it's 'bout fohty now, suh."—Country Gentleman.

All At Sea

A girl at a public library inquired if "The Red Boat" was in.

"I don't think we have the book," she was told.

"Oh, excuse me," said the girl. "I made a mistake. The title is 'The Scarlet Launch.'"

After a search the library assistant reported that no book with that title was listed in the card catalog.

"But I am sure you have the book," the girl insisted. Suddenly she opened her handbag and produced a slip of paper on which something was written. Then she blushed. "Oh, I beg your pardon," she said. "It's 'The Ruby Yacht,' by a man named Omar, I want."—Boston Transcript.

Rules of the Road in Japan

(As translated from Japanese traffic regulations by Michigan Roads and Pavements.)

At the rise of the hand of a policeman, stop rapidly. Do not pass him by or otherwise disrespect him.

Whenever a passenger of the foot hove in sight tootle the horn trumpet to him melodiously at first. If he still obstacles your passage, tootle him with vigor and express by word of the mouth the warning, "Hi, Hi."

Beware of the wandering horse that he shall not take fright as you pass him. Do not explode the exhaust box at him. Go soothingly by, or stop by the roadside till he pass away.

Give big space to the festive dog that make sport in the roadway. Avoid entanglement of dog with your wheelspokes.

Go soothingly on the grease-mud, as there lurk the skid demon. Press the brake of the foot as you roll around the corners and save the collapse and tie-up.

Use Your Head

A woodpecker pecks
Out a great many specks
Of sawdust
When building a hut;
He works like a nigger
To make the hole bigger—
He's sore if
His cutter won't cut.
He don't bother with plans
Of cheap artisans,
But there's one thing
Can rightly be said:
The whole excavation
Has this explanation—
He builds it
By
Using
His
Head.

—Dixie Highway.

ROAD BUILDING AN INVESTMENT, NOT AN EXPENSE

(Continued from Page Ten)

for mental development far exceed those of the cities of a quarter of a century ago.

The wealth gained through human understanding is well worth the entire cost of this open road. Had we improved highways and motor driven traffic in 1860 there would have been no civil war to bring its anguish and embittered grief.

The open road enables the toiler in the factory to share in the glories of the hills and the peace of the trees. The open road brings comfort to the lowly whose forebears thought them luxuries. Field and river, mountain and glen are yours for the seeing.

Sam Waller Foss wished to live by the side of the road and become a friend to man; but he is the greatest friend to mankind who builds that road, whether through the instrumentality of time or means.

SPLENDID PROGRESS REPORTED ON EIGHT BOND ISSUE ROADS

(Continued from Page Twenty)

Broward is still in service but it is expected that this will be removed during the ensuing week. The Ponder-Hammell Company has commenced to assemble material for the construction of Cedar creek bridge and it is expected that pile driving will commence the first of the ensuing week.

Orange Park Road

The concrete curb was completed during the week, and fair progress was made on the laying of the rock base. The wet weather and the shortage of rock, however, has delayed the work to such an extent that it will be necessary to detour traffic over the Old Orange Park road to 104th street, and from 104th street to Orange Park road. The main road is wide open to traffic from 104th street to the Clay county line, except that the brick intersection at the Camp Johnston road, at Yukon, has not as yet been relaid, and this and the crossing of the A. C. L. railway is quite rough, and should be crossed at low speed.

The location on the ground is now being made for both a temporary bridge and a permanent bridge at Big Fishweir creek, and it is expected that the W. J. Bryson Paving Company will start construction soon on the temporary bridge.

Moncrief Road

The second section of this road, where the brick has been removed, is almost impassable, and no traffic should go over this section of this road unless absolutely necessary. This situation covers not only the brick section, but that portion of section No. 3 between Six Mile creek and the Pickett road. This work is making good progress, and within the next few days should be in fair condition for traffic. It is understood, of course, that the asphalt pavement of the first section of this road is complete and extends to a point beyond the last colored cemetery.

Baldwin-Maxville Road

Fair progress is being made on two of the out-fall ditches, and it is expected that all of these ditches will be well under way during the ensuing week, the work on the out-fall ditches being given preference over the grading of the road itself. Excellent progress has been made recently on the grading of the road, and good quality of work is being done. The concrete bridge over the drainage canal is now completed, and

(Continued on Page 24)

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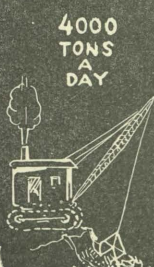


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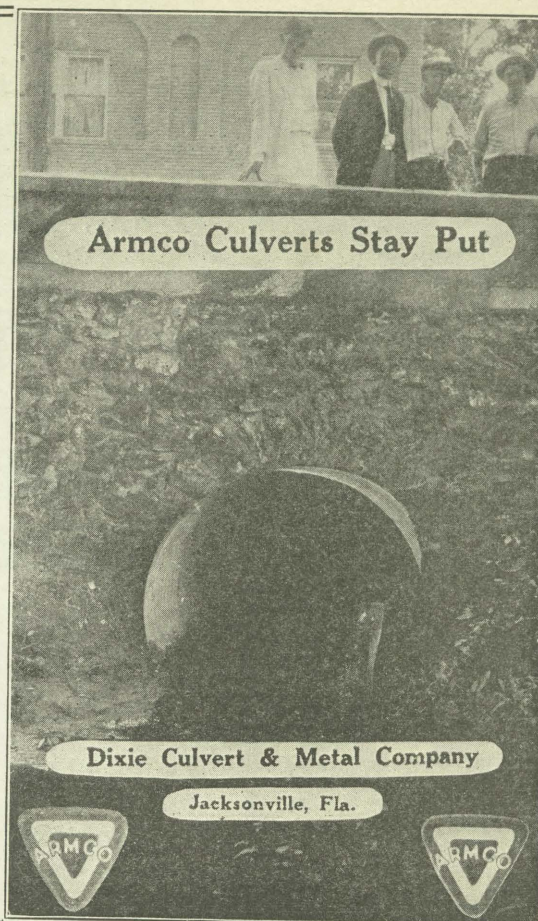
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Conners Highway Opening July 4 at Okeechobee

Great Celebration to Be Held and 5,000 Automobiles Expected By Those in Charge

Motorcades composed of at least 5,000 automobiles will wend their way into Okeechobee City, South Florida's mecca, on Independence Day, in celebration of the opening of the already famous Conners highway, is the conservative estimate of those in charge of the affairs.

Palm Beach county alone is expected to send at least 2,000 cars to the event, while all other counties in the vicinity of the capital city of the Glades empire will do their share in making a suitable impression.

Committees in charge of the various features of the elaborate entertainment have already estimated the actual cost of the event at between \$20,000 and \$25,000, making it one of the most expensive spectacles ever staged in the State.

Through the efforts of W. J. Conners, in whose honor the celebration is to be staged, New York State celebrities will be brought to Florida and given an opportunity to see the State and its progressive people in what may be called an off season, while they are at summer play. The huge picnic in which people from every part of the State will participate, will be distinctive in every detail. The program is to contain features from the old-time barbecue to most fantastic pageant and carnival. Arrangements have been made to entertain children as well as adults in a way which will have a lasting remembrance.

The Fourth of July celebration will be a real "red letter" day in future Florida history, no doubt to become an annual affair.—Florida Times-Union.

SPLENDID PROGRESS REPORTED ON EIGHT BOND ISSUE ROADS

(Continued from Page Twenty-three)

the work of the finishing of the concrete surfaces is well under way, and the final forms will probably be removed on June 25, at which time the bridge will be ready for traffic.

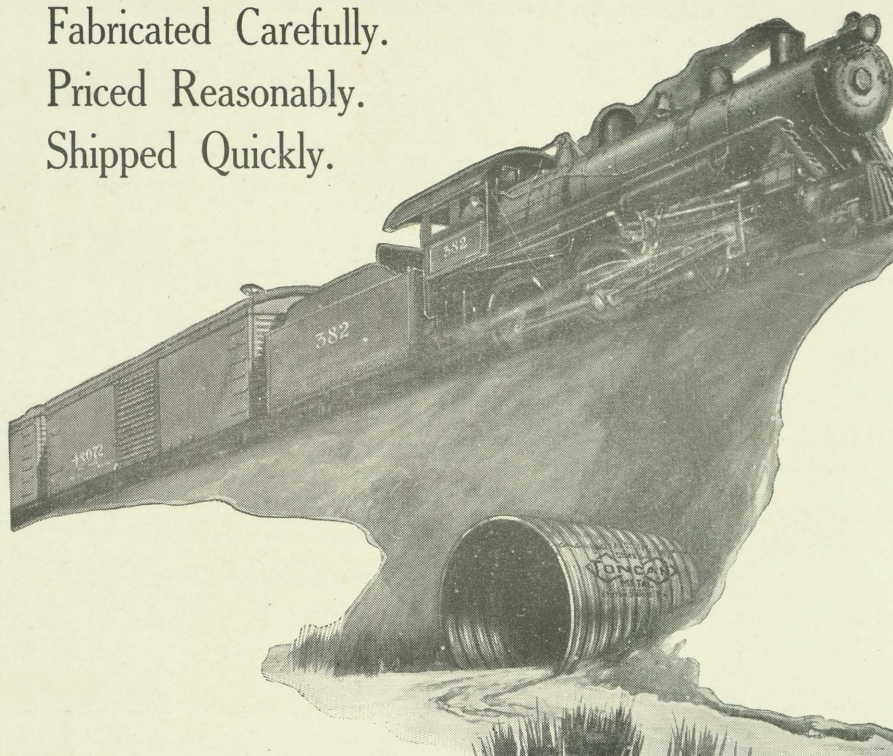
San Jose Boulevard

Good progress was made during the week on the laying of asphaltic concrete on the first section of this road. The pavement is complete to a point just beyond the residence of H. C. Ploof, and it is expected that within the next ten days all of the asphaltic concrete on this road will be laid, except the two short pieces on each side of Shad creek and Christopher creek bridges. The construction on Shad creek bridge

is making good progress. All of the north abutment and the base of the south abutment will be concreted at the end of the present week, and it is expected that the south abutment will be completed and the forms placed for the girder and floor slabs during the ensuing week. This road is closed during working hours, at the point where asphaltic concrete is being placed, and it is urged that no traffic pass over this part of the road between the hours of 7 a. m. and 5 p. m. Local traffic can reach points on this road by means of the St. Augustine road and the numerous woods roads which cross from the St. Augustine road to San Jose boulevard. The detour bridges at both Shad and Christopher creeks will need to be used for several weeks, and great care should be used in driving over these on account of sharp turns.—Florida Times-Union.



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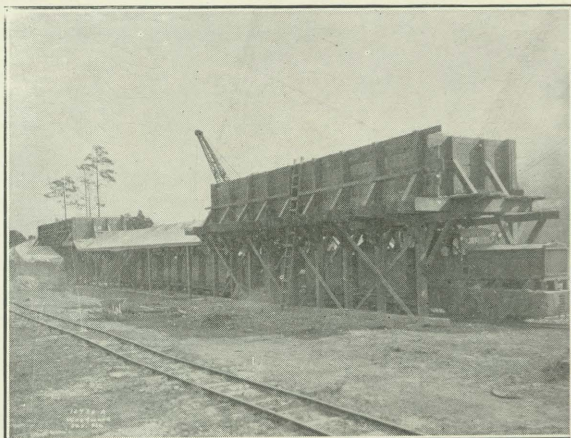
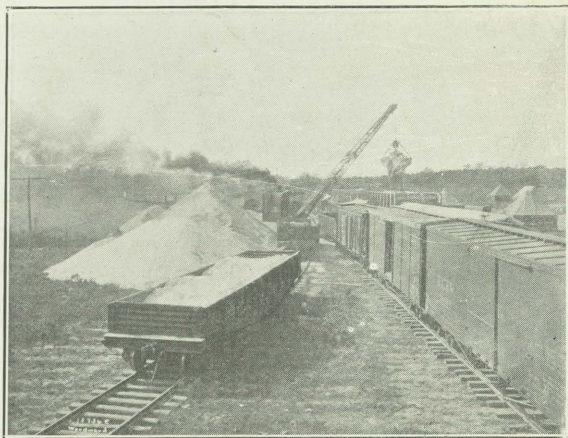
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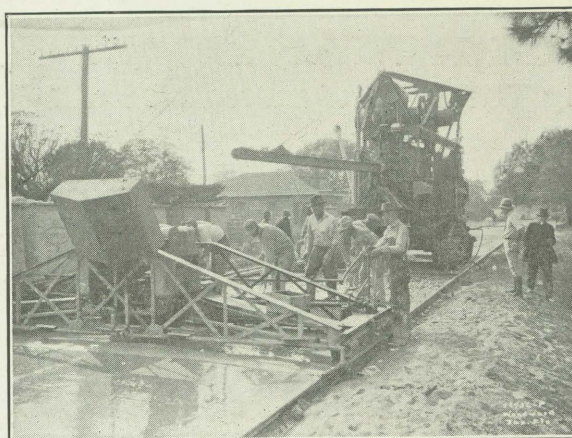
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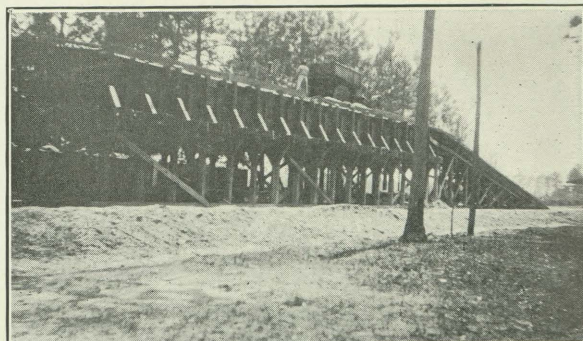
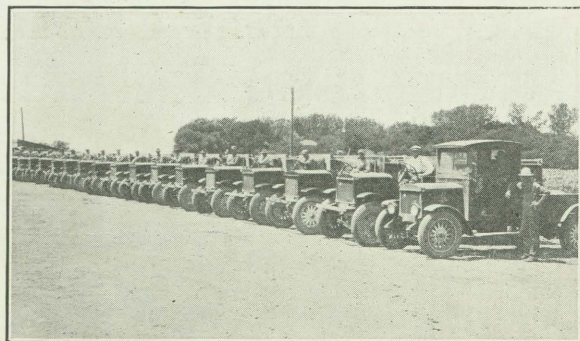
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